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Предлагаемое учебное пособие предназначено для развития навыков устной речи в группах аспирантов и научных сотрудников, готовящихся к сдаче кандидатского экзамена по английскому языку, и при работе в студенческих группах.

Пособие представляет собой сборник текстов и упражнений к ним и состоит из четырех разделов: «Биография ученого» (составитель Т. Н. Михельсон); «Институт и лаборатория» (составитель Н. В. Успенская); «Научная конференция» (составитель С. М. Костенко); «Научная рецензия» (составитель И. Б. Борковская).

Каждый раздел включает несколько оригинальных (неадаптированных), но сокращенных текстов на данную тему. При их отборе авторы стремились к тому, чтобы каждый текст носил общенаучный характер, достаточно легко пересказывался и был насыщен лексикой, связанной с изучаемой темой.

Цель упражнений, предлагаемых после каждого текста, — закрепить лексический материал текста и дополнительные лексические единицы, относящиеся к данной теме, вне зависимости от узкой специализации. Авторы рекомендуют проходить тексты и упражнения каждого раздела в той последовательности, в которой они даны, поскольку в текстах предусмотрена определенная повторяемость лексики, а каждое последующее упражнение предполагает знание предшествующего материала.

Тексты пособия заимствованы из следующих источников: биографии ученых — из английских и американских энциклопедий; тексты раздела «Институт и лаборатория» — из американского путеводителя, журнала «Civil Engineering», а текст «Imperial College» — рассказ английского физика о своем колледже, записанный на магнитофон; тексты раздела «Научная конференция» взяты из журнала «Nature»; рецензии — из журнала «Endeavour».

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PART I

BIOGRAPHY OF A SCIENTIST

Text 1

NIELS BOHR

Bohr is a Danish physicist, one of the most ingenious interpreters of his generation of the problems of modern theoretical physics. Born at Copenhagen on October 7, 1885, he did physics at the University of Copenhagen, obtaining his doctor's degree in 1911 and proceeded immediately to Cavendish Laboratory at Cambridge for further study under Sir J. J. Thomson. In 1912 he moved to Manchester University, where he was associated with Ernest Rutherford in the latter's atomic research. In 1914, following a year as lecturer at the University of Copenhagen Bohr returned to Manchester, remaining there until 1916, when he was made professor of Theoretical Physics at the University of Copenhagen.

In 1920, largely due to Bohr's efforts, the Institute of Theoretical Physics was established at Copenhagen. He became its first head and under him the Institute has become an important centre for the development of theoretical and experimental physics. Prior to World War II Bohr's Institute had become the world center for atomic physics.

Just before World War II, Bohr advanced the idea that the compound nucleus was fundamental to the phenomena of nuclear disintegration, a concept that proved fruitful in later work. In collaboration with John Archibald Wheeler he proposed a theory of nuclear fission that led to atomic research which produced the atomic bomb.

In 1943, after the Nazis had occupied Denmark, Bohr escaped to England in a small boat. Making the way to the United States, he took a leading part in the atomic bomb project, working mainly at the laboratory established in early 1943 at Los Angeles in New Mexico. In 1944—1945 Bohr served as adviser to the Scientific Staff of the Manhatten Project. In 1945 Bohr returned to Copenhagen to resume his duties as director of the Institute of Theoretical Physics.

Bohr's great achievement was recognized internationally by the Nobel prize award to him in 1922 for his study of atomic structure and radiation. In 1957 he was the first recipient of the Atoms for Peace award. That same year at the Massachusetts Institute of Technology, he delivered his lecture on the Philosophical Lessons of Atomic Progress.

Exercises

1. Give an adequate translation of the sentences below paying special attention to the parts in italics.

1. Bohr *is one of the most ingenious interpreters of his generation* of the problems of modern theoretical physics.
2. He *did physics* at the University of Copenhagen.
3. He proceeded immediately to Cambridge for *further studies under Sir J. J. Thomson.*
4. In 1912 he moved to Manchester University where *he was associated with* Ernest Rutherford in the latter's atomic research.
5. In 1914, *following a year as lecturer* at the University of Copenhagen, Bohr returned to Manchester.
6. In 1920, *largely due to Bohr's efforts*, the Institute of Theoretical Physics was established.
7. Bohr became its first head and *under him the Institute* has become a world famous centre of research.
8. Bohr *took a leading part* in the atomic bomb project, working mainly at the laboratory established in early 1943.
9. In 1944—1945 Bohr *served as adviser to the scientific staff* of the Manhatten project.
10. In 1945 Bohr returned to Copenhagen *to resume* his duties as director of the Institute.

11. Bohr's great achievement *was recognized internationally* by the Nobel prize award to him.
12. In 1957 he was *the first recipient* of the Atoms for Peace award.
13. That same year he *delivered his lecture on* the Philosophical lessons of Atomic Progress.

2. Insert words and expressions from the text.

1. Bohr was ... at Copenhagen in 1885.
2. Bohr ... his doctor's degree in 1911.
3. After graduation he went to Cavendish Laboratory for ... study.
4. In 1912 Bohr ... to Manchester University.
5. At Manchester University Bohr was ... with E. Rutherford.
6. Due to Bohr's ... the Institute of Theoretical Physics became the ... center for atomic physics.
7. Bohr became the first ... of the newly created Institute.
8. Just before World War II Bohr ... an idea that proved ... in later work.
9. In collaboration with Wheeler Bohr ... a theory of nuclear fission.
10. In the United States Bohr ...... in the atomic bomb project.
11. Bohr served as ... to the Scientific ... of the Manhatten project.
12. In 1945 Bohr returned to Copenhagen to ... his duties.
13. Bohr's great ... was recognized internationally.
14. In 1957 Bohr ... a lecture on the Philosophical Lessons of Atomic progress.

3. Paraphrase the sentences below substituting words and expressions from the text for those in italics.

1. Bohr *studied* physics at the University of Copenhagen.
2. He *graduated* (*from*, *at*) the University in 1911.
3. In 1912 he *went to* Manchester where he worked in collaboration with E. Rutherford.
4. *Prior to* Word War II Bohr *put forward* an idea that proved useful.
5. *Working together* with Wheeler Bohr advanced a theory of nuclear fission.
6. He *participated in* atomic research.

7. In 1945 Bohr *came back* to Copenhagen.
8. Bohr's great *contributions won him international recognition.*
9. He *was the first to receive* the Atoms for Peace award.
10. That same year he *gave* his lecture on the Philosophical Lessons of Atomic Progress.

4. Answer the questions using the indefinite article before nouns denoting profession. Here is a list of nouns and adjectives for you to choose: *scientist, engineer, composer, play-wright, poet, physicist, chemist, teacher, writer, worker,* and the like; *famous, world-famous, distinguished, eminent, well-known, world-known.*

Example: Who is Newton?
Newton is a famous English scientist.

1. Who is Dalton?
2. Who is Byron?
3. Who is Tolstoy?
4. Who is Bach?
5. Who is Faraday?
6. Who is Mendeleyev?
7. Who is Bohr?
8. Who is Bernard Shaw?
9. Who is Darwin?
10. Who are you?
11. Who am I?
12. Who is your father?
13. Who is your mother?
14. Who is your scientific adviser?

5. Change the questions given in exercise 4 according to the example and answer them.

Example: Can you (will you) tell me (us) what Newton is?
Yes, of course (of course, I can).
Your question is easy to answer. Newton is a famous English scientist.

6. Change the sentences below using the following nouns: *lecturer, experimenter, theoretical physicist, painter, post-graduate, student, first (second,* etc.*) year student, scientist.* Mind that the indefinite article is used before nouns denoting a profession.

Example: As far as I know, Mr. Brown is in his third year at the University.
As far as I know, Mr. Brown is a third year student of the University.

1. I thought your friend was in his second year at the University.

2. I learned that Miss Black was good at painting.
3. I've been told that Mr. Smith does postgraduate research at your Institute.
4. To my mind, Dr. M. did distinguished research.
5. As far as I know, Dr. N. made his fundamental contribution when at the University.
6. I know for certain that Borodin did many experiments.
7. If I am not mistaken, Dr. N. is distinguished for his scientific research in theoretical physics.
8. For all I know, Dr. N. gives lectures at the University.

7. Change the sentences given in exercise 6.

E x a m p l e: As far as I know, Mr. Brown is in his third year at the University.
Right you are (you are quite right; it's right). He is a third year student.

8. Answer the following questions.

E x a m p l e: Who runs your laboratory?
Professor N. does. He is head of our laboratory. He was appointed (elected, made) head some years ago.

1. Who manages the affairs of your laboratory?
2. Who is in charge of your department?
3. Who is responsible for your team?
4. Who is at the head of your committee?

9. Insert the definite or the indefinite article.

1. Milton was ... famous English poet. He was ... author of "Paradise Lost".
2. My supervisor is ... distinguished scientist.
3. He is ... author of a great number of papers and monographs.
4. Who is ... manager of your department? Dr. N. is.
5. M-me Curi was ... world-famous physicist.
6. Do you happen to know who was ... founder of modern quantum mechanics?
7. Newton is known as ... discoverer of the Laws of Motion.
8. Morgan is ... author of many books.
9. Cooper was ... great discoverer.
10. Columbus is ... discoverer of America.

11. Popov is . . . inventor of radio.
12. Edison is well-known as . . . inventor.

10. Paraphrase the sentences below using the expressions *to be famous for, to be distinguished for, to be known for.*

Examples: 1) Bohr made a distinguished contribution to science.
Bohr is distinguished for his contribution to science.
2) Columbus discovered America.
Columbus is famous for his discovery of America.

1. Feyman gave a well-known course of lectures.
2. Mendeleyev discovered the Law of Periodicity.
3. Dickens wrote many world-famous novels.
4. Rutherford did distinguished research.
5. Copernikus developed his famous hypothesis.

11. Paraphrase the sentences below using the expressions *to be famous for (as), to be distinguished for (as), to be known for (as).*

Examples: 1) Guttenberg was the inventor of printing.
Guttenberg is famous as the inventor of printing.
2) Guttenberg is famous because he invented printing.
Guttenberg is famous for having invented printing.

1. Stratford-on-Avon is Shakespeare's birthplace.
2. Shalapin was a well-known singer.
3. Why is your town famous? (Begin your question with «What»).
4. The town is well-known because it is a scientific centre.
5. Columbus was the man who discovered America.
6. Novosibirsk is a well-known scientific centre.
7. Shroedinger is the creator of wave-mechanics.
8. Pavlov is world-famous because he introduced the laws of physiology.

12. Translate into English.

1. Мария Кюри известна тем, что открыла радий.

2. Фарадей знаменит тем, что сформулировал (formulate) закон электромагнитной индукции (electromagnetic induction).
3. Эддисон известен как изобретатель электрической лампы.
4. Чем известен (знаменит) ваш город?
5. Гагарин прославился как первый космонавт.

13. Translate into English using the expressions *to work (to study, etc.) under somebody.*

Examples: 1) Он работает под руководством профессора А.
He works under Professor A.
2) Лаборатория под руководством профессора А. (которой руководит профессор А.) стала крупным научным центром.
The laboratory under Professor A. became an important scientific centre.

1. Я занимаюсь физикой под руководством профессора В.
2. Под руководством профессора Д. сотрудники (associates) нашего института разработали (to develop) новые методы.
3. Группа (team), которой руководит доктор А., сделала важное открытие (to make a discovery).
4. Под чьим руководством вы проводите исследования (to do research)?

14. Paraphrase the sentences below.

Example: To my mind, the text is very interesting.
I find the text very interesting.

1. To my mind, the experiment is very important.
2. To my mind, your advice is very helpful.
3. To my mind, the idea is rather simple (complicated).
4. To my mind, the book is too difficult.
5. To my mind, the data are accurate.
6. To my mind, your experiment is easy.

15. Answer the following questions.

A

1. What is the title of the text?
2. What is the text about? (What is it concerned with? What does it deal with?)

3. Do you find the text interesting (difficult, easy)?
4. Did you find it easy (difficult, interesting) to read (to translate, to understand) the text?

B

5. Who was Bohr?
6. What is he famous for?
7. Where was he educated?
8. When did he obtain his doctor's degree?
9. Where did he go for further studies?
10. Under whom did he study at Cambridge?
11. Where did he move in 1912?
12. Where did he give lectures?
13. What did Bohr do in Manchester?
14. What ideas did Bohr advance?
15. Did Bohr stay in Denmark after the Nazis had occupied the country?
16. What activities of Bohr won him international recognition?
17. What award did he receive in 1957?

C

18. Where were you educated?
19. Did you do further study after graduation?
20. Under whom did you work after graduation?
21. Did you move anywhere after graduation?
22. Have you ever given lectures?
23. Who, do you think, has advanced the most fundamental ideas of modern physics (biology, physiology, astronomy, chemistry, etc.)?
24. What part do you take in research carried on at your laboratory?
25. Who is head of your Institute?

16. Use words and expressions in italics in sentences of your own.

Example: Bohr proceeded to Cavendish laboratory for *further study under* Sir J. J. Thomson.
I did further study under Professor N.

1. Bohr *was born* at Copenhagen.
2. He *obtained his degree at* the University of Copenhagen.

3. In 1912 he *moved to* Manchester University.
4. Bohr *was associated with* E. Rutherford.
5. In 1920 the Institute of Theoretical Physics *was established.*
6. *In collaboration with* Wheeler Bohr proposed a theory of great importance.
7. Bohr *advanced the idea* that the compound nucleus was fundamental to nuclear disintegration.
8. Bohr's great *achievement was recognized* by the Nobel prize.
9. Bohr worked *in collaboration with* many outstanding scientists.
10. He *took a leading part in* atomic research.
11. Bohr *resumed* his duties as director of the Institute of Theoretical Physics.

17. React to the following statements and questions using the verbs *to obtain* or *to receive*. Mind: to obtain means to get something by making efforts (to obtain data, evidence, information, knowledge, a result, a degree; to receive a degree is also possible); to receive means to get what is offered, given, sent (to receive a letter, news, a telegram, education, training, an award, a prize).

E x a m p l e: You obtained valuable information, didn't you?
Yes, I'm glad to tell you, I succeeded in obtaining important information.

1. I hear you obtained some convincing experimental evidence to prove your hypothesis.
2. When did you obtain your degree?
3. I hear you received a letter to-day.
4. I've been told you succeeded in obtaining some data of interest.
5. As far as I understood, you received your education at the University. Is it really so?
6. Did your scientific adviser receive the Lenin prize?
7. I suppose you obtained a lot of experience through your work.
8. I wish you told us whether you obtained the information you needed.
9. I hope the results obtained by you will help you to proceed with your work.
10. Will you tell me what award your manager received?

18. Translate the following sentences using the verbs *to get, to obtain, to receive*.

1. Он не получил образования.
2. Вы получили известия (news) о нем?
3. Он получит премию.
4. Она получила ценные данные.
5. Я думаю, она получит степень доктора.
6. Полученные им сведения достоверны (reliable).
7. Он получил большой (deep) опыт и знания.
8. Когда вы получили эти данные?
9. Полученные им результаты надежны.
10. Я боюсь, я не получу письма сегодня.

19. Change the following sentences using the expressions given in brackets.

Example: One of my colleagues is a Lenin prize winner. (important contribution to the study of the outer space).

One of my colleagues has been awarded the Lenin prize for his important contribution to the study of the outer space.

One of my colleagues has received the Lenin prize for his important contribution to the study of the outer space.

Important contribution to the study of the outer space has won him the Lenin prize.

1. Many scientists of our Institute are Lenin prize winners. (outstanding achievements in the field of organic chemistry).
2. One of the workers of their laboratory is a Lenin prize winner. (excellent contribution to science).
3. A friend of mine is a Lenin prize winner. (far-reaching research in nuclear physics).

20. Translate the following sentences using the verbs in italics.

to move

1. Машины двигались медленно.
2. Он собирается (to be going to) переехать в Гатчину.
3. Она перешла в другой (another) университет.
4. Пододвиньте стул к окну.

to recognize

5. Я не узнал вашего руководителя.
6. Осознал ли он свою ошибку?
7. Все (everybody) признали его заслуги.
8. Его заслуги общепризнаны.

to establish

9. Наша лаборатория организована 10 лет назад.
10. Кто установил этот закон?

to deliver

11. Он будет читать курс лекций по (in) физике.
12. Кто произнес речь на (at) собрании?

to produce

13. Они скоро выпустят новый фильм.
14. Открытие произвело сенсацию.
15. Покажите (предъявите) свой пропуск (pass).
16. Его выступление (talk) произвело на меня глубокое (deep) впечатление.
17. Этот завод выпускает новую аппаратуру.

21. Agree to the statements below using some of the following introductory phrases: *I quite (fully) agree with you; you are right; that's right; yes, indeed; exactly so; quite so; I am of the same opinion; I think so; I believe so.*

Examples: 1) As far as I know, Bohr was a Danish physicist.
You are right. He was an outstanding physicist, one of the most ingenious interpreters of the problems of modern physics.

2) As far as I remember, Bohr was born in Copenhagen.
That's right and he was educated at the University of Copenhagen.

3) If I am not mistaken, Bohr obtained his doctor's degree in 1911.
Exactly so. After that he proceeded to Cambridge.

1. If I am not mistaken, Bohr left Cambridge for Manchester.

2. As far as I could gather from the text, Bohr took an active part in establishing the Institute of Theoretical Physics.
3. I believe Bohr advanced a lot of concepts of far-reaching consequence.
4. As far as I could understand from what I've read, Bohr did not stay in Denmark after the Nazis occupied the country.
5. I have heard Bohr's great achievement was generally recognized, wasn't it?
6. According to what I know, Bohr was a distinguished physicist.
7. I hear Bohr was not only a distinguished physicist, he was an outstanding philosopher as well.
8. As far as I remember, Bohr gave lectures at the University of Copenhagen.
9. Am I to understand that Bohr worked not only in Denmark but in America as well?

22. Answer the following questions using the words in brackets and some of the introductory phrases: ***as far as I know; as far as I remember; to my mind; certainly; it's hard to tell; probably; to tell the truth; if I am not mistaken; of course; I hope so.***

Example: Do you work hard? (to be associated with).
Of course I do. I am associated with a team of workers and all of us work rather hard.

1. Does your friend still stay in Leningrad? (to move somewhere).
2. Why was Fermi awarded the Nobel prize? (to recognize).
3. What is Newton's main contribution to science? (to establish).
4. Are you going to take part in the research carried on in your laboratory? (to resume, to obtain new data).
5. What activities is your supervisor engaged in? (to be at the head of, to give lectures).
6. What is Mendeleyev famous for? (to advance, to propose).
7. Are you good at sport? (to win a prize).
8. Do you work alone at your problem? (in collaboration with).

9. What is the main problem you work at? (to work under somebody).
10. Are you very busy? (further studies).

23. Translate into English.

1. Родиться.
2. Он родился в 1933 году.
3. Когда вы родились?
4. Так как он родился в Англии, он знал английский язык.
5. Получать образование.
6. Где вы получили образование?
7. Получив образование в Кэмбридже, он знал (to be familiar with) систему образования (educational system) в Англии.
8. Получать степень.
9. Где он получил степень доктора?
10. Занимался ли Бор под руководством Томсона?
11. Собирается ли она заниматься дальше (to take up further study)?
12. Когда ваша семья переехала в Москву?
13. Бор работал с Резерфордом.
14. Когда она работала с вами?
15. Работали ли вы когда-либо с ними? (Use Present Perfect).
16. Где вы работали с ними?
17. Проработав год с таким видным ученым, я получил много (a large amount of) знаний.
18. Благодаря усилиям Бора.
19. Благодаря знаниям физики (in physics).
20. Наш опыт был закончен благодаря совместным (joint) усилиям многих сотрудников (workers).
21. Кто был первым директором вашего института?
22. Кто организовал вашу лабораторию?
23. Выдвигать мысль (idea).
24. Мысль, выдвинутая Бором, оказалась плодотворной.
25. Предлагать теорию.
26. Что вы предлагаете?
27. Предложенный им метод (approach) оказался полезным (helpful).
28. Вернувшись в Копенгаген, Бор вновь начал заниматься исследовательской работой.

29. Когда вы снова начнете свою работу? (Use "to be going to").
30. Бор работал консультантом в научном отделе Манхэттенского проекта.
31. Великие заслуги Бора получили признание.
32. В том же году Бор прочитал свою знаменитую лекцию в Массачусетском университете.
33. Лекции, которые читают (Use Participle II) в университете, дают студентам много (a large amount of, a great amount of) знаний.

Text 2

CHARLES ROBERT DARWIN

Charles Robert Darwin, English naturalist and author, was born at Shrewsbury, February 12, 1809. His father, Robert Warning Darwin was a distinguished physician at Shrewsbury.

Charles Darwin studied at Shrewsbury School under Dr. S. Butler. After attending school Darwin spent two years at Edinburg University in the study of medicine. In 1817 he enrolled at Cambridge University. He early devoted himself to the study of natural history. In 1825 he was appointed naturalist to a naval vessel, then about to sail on an extended surveying expedition. Darwin came home with rich stores of knowledge. He had been much impressed by the manner in which closely allied animals replace one another in proceeding southwards in South America.

In 1837 Darmin had started a notebook in which he entered facts concerning natural selection. He saw that selection was the key-stone of man's success. Various ideas as to the causes of evolution had to be abandoned.

In 1842, he wrote out his first outline on the origin of species. He corresponded with Asa Gray, the United States naturalist, and sent Gray a letter explaining his views in 1857. This letter became afterwards classical.

Charles Lyell, author of the widely discussed "Principles of Geology", urged Darwin to prepare a more extensive

treatise. The revision was only half finished when Darwin received a letter and manuscript from A. R. Wallace. Wallace asked Darwin to read the manuscript and to forward it to Lyell. Darwin was much startled to find in the essay a complete abstract of his own theory of natural selection. It was an unusual situation: two naturalists, working independently of each other had simultaneously developed theories that were identical. Both had been influenced by Th. R. Maltus' work on population, both were familiar with Lyell's views on geology, each had observed widely varying species.

Darwin sent Wallace's manuscript, together with the second draft of his own treatise, to Lyell, who consulted Josef D. Hooker, English botanist. On their recommendation both Wallace's and Darwin's essays were read as a joint paper before the Linnae Society at London. In 1859 Darwin published "The Origin of Species by Natural Selection".

Although Darwin and Wallace differed in some opinions they remained friends. Darwin was, with Wallace, the first to attempt to work out a logical explanation of the variations of species, and to collect and arrange facts upon which the theory of evolution could be based.

Because of the emphasis placed upon "The Origin of Species" and "The Descent of Man" Darwin's numerous other important contributions are frequently overlooked.

Darwin received many honours from learned societies in Great Britain and on the continent. He died at Down, Kent, England, April 19, 1882.

Exercises

1. Insert words and expressions from the text.

1. Darwin's father was a ... physician.
2. After ... school Darwin entered the University.
3. He was ... naturalist to a naval vessel.
4. Darwin went on an extended ... expedition.
5. He had been much ... by the manner in which animals replace one another.
6. In 1842, he wrote his first ... on the origin of species.
7. Darwin and Wallace ... identical theories.
8. They both were ... by Maltus' work on population.

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9. Both of them were ... with Lyell's views on geology.
10. Darwin and Wallace remained friends although they differed in some...
11. Darwin ... a logical explanation of the variations of species.
12. He collected and ... facts.
13. He ... many honours from ... societies in Great Britain.

2. Answer the following questions. Mind: no article is used before nouns denoting some branch of science like mathematics, botany, physiology, chemistry, philosophy, mechanics and the like.

Example: What examinations have you already passed?
I have passed my exams in history, literature, general linguistics and in phonetics.

1. What examinations are you going to take next spring?
2. What subjects did you like best while at school?
3. What subjects were you interested in while at the Institute (University)?
4. What course of lectures did you attend while an undergraduate?
5. In what line do you work?

3. Explain the use of the definite article before nouns denoting some branch of science and translate the sentences below.

1. I wish to know which of you is interested in physics.
2. Will you tell me whether you know the physics of proteins.
3. From what you've said I can see that you are fond of chemistry.
4. From what he said we learned that he was familiar with the chemistry of solutions.
5. Do you attend lectures in the history of philosophy?
6. Am I to understand that history wasn't taught at school at that time?

4. Insert the definite article where necessary.

Examples: 1) He gives lectures in physics.
2) He gives lectures in *the* physics of proteins.

1. Do you take interest in ... science?
2. I am fond of ... music.
3. ... music of Chopin is beautiful.

4. I know that ... botany is a branch of ... knowledge.
5. I'm sure ... knowledge of English will help you greatly.
6. Are you familiar with ... nature of ... radioactivity?
7. He had to take into account ... radioactivity of this element.
8. Man is engaged in constant struggle with ... nature.
9. Dr. B. has ... accurate knowledge of ... proteins.
10. What is ... real knowledge?
11. Dr. N. studied ... law.
12. Mendeleyev discovered ... Law of ... Periodicity.
13. Dr. N. is famous for his important contribution to ... science.
14. Rutherford established ... nature of ... electrical structure of ... matter.
15. Botany is ... science of ... plants.
16. Pavlov studied ... science at the University.

5. Insert articles where necessary. Mind: no article is used before *school*.

Examples: 1) He works at *a* plant.
2) He works at *the* Lomonosov plant.

1. I am going to read my paper at ... Department of Theoretical Physics.
2. Dr. George gave excellent lectures at ... University.
3. Are you going to take post-graduate studies at ... Institute of Botany?
4. My younger sister studied at ... school.
5. My friend works at ... plant.
6. Did you receive the position of a secretary at ... office or at ... plant?

6. Give a full answer to the following questions. Mind that after the verbs *to answer, to attend, to consult, to enjoy, to enter, to join, to watch, to leave* no preposition is needed.

Example: Can you answer all my questions?
Sorry, I can't. I'll try to answer one question, if you please.

1. Were you able to answer all the questions put to you?
2. Have you answered the letter?
3. Do you regularly attend lectures in philosophy (English classes)?

4. Did your friend attend the last seminar?
5. Are you going to attend our meeting to-night?
6. Which school did you (your wife, husband) attend?
7. When are you going to consult your supervisor (scientific adviser)?
8. Has your wife consulted the doctor?
9. Do you consult the head (manager) of your laboratory on problems concerned with your work?
10. When do you consult the dictionary?
11. Did you enjoy your stay in London?
12. Did you enjoy your holiday?
13. At what age did you enter the Institute?
14. When did your fellow-worker enter the University?
15. What Institute did your wife enter?
16. Who entered that room?
17. Did you join any scientific circle while at the University?
18. When did you join the laboratory?
19. Have you joined the party?
20. Are you fond of watching football?
21. Do you watch the T. V.?
22. When did you leave school?
23. When did your friend leave Leningrad?
24. When did you leave the University?

7. Answer the following questions using the verbs in italics.

Example: What mark did your teacher give you in literature? (*to answer*).
He gave me a five. I answered all his questions.

to attend

1. What do you do to learn philosophy?
2. What did you do yesterday? I called on you but was told you were away.
3. How often are seminars held at your Institute?

to consult

4. What do you do if you feel unwell?
5. What do you do if you come across an unfamiliar word in your text?
6. What do you do if you encounter difficulties when solving some problem?

to enjoy

7. Did you like the film you saw yesterday?
8. Did you go to Kiev on holiday?

to enter

9. How old is your sister?
10. Is that room empty? Is there anyboby in that room?
11. What Institute did your husband (wife) graduate (from)?

to join

12. Are you a member of the party?
13. Do you attend the gatherings of the Learned Geographical Society?
14. Haw long have you been working at this laboratory?

to leave

15. What Institute did you enter?
16. Where did you live before coming to Leningrad?

8. Translate the following sentences using the verbs *to answer, to attend, to consult, to enjoy, to enter, to follow, to join, to leave, to watch*. Mind: no preposition is used after these verbs.

1. Преподаватель вошел в класс.
2. Он уехал из Ленинграда.
3. Кто может ответить на мой вопрос?
4. Идите вперед (You go first), а я пойду за вами.
5. Только 10 студентов было (присутствовало) на лекции.
6. Когда вы вступили в клуб?
7. Получили ли вы удовольствие от поездки?
8. Следили ли вы за игрой?
9. Он не хотел вступать в научное общество.
10. Советовались ли вы со своим руководителем?
11. Следили ли вы за падением (the drop) температуры?
12. Я поступил в университет в 1966 году.
13. Когда вы закончили (leave) школу (институт)?

9. Paraphrase the following sentences using the verb *to attend*.

Examples: 1) He goes to school.
He attends school.
2) I was present at the last lecture.
I attended the last lecture.

1. How many people were present at the lecture on polymers?
2. Does your son go to school?
3. Are you going to be present at the next seminar on Shakespeare?
4. Did you go to English classes?
5. You studied at the University, didn't you?

10. Paraphrase the following sentences using the verb *to visit*.

Examples: 1) I went to England last year.
I visited England last year.
2) The scientist was in this country.
He visited this country.

1. I went to see my friend yesterday.
2. He came to Leningrad the other day.
3. Have you called upon your colleague in the hospital?
4. Have you seen the new exhibition?
5. Have you been to the Hermitage?
6. On his trip to Moscow he saw many places of interest.

11. Insert the verbs *to attend* or *to visit*.

1. All children over seven must . . . school.
2. Did you . . . the new exhibition?
3. Who . . . the last meeting?
4. Will you . . . your friend to-morrow?
5. Many foreign tourists . . . our country.
6. While in Moscow I . . . the Gallery of Russian art.
7. Who's going to . . . the next lecture in mathematics?
8. When are you going to . . . our city?
9. During my stay in Prague I . . . many places of interest.

12. Translate the following sentences using the verbs *to attend* or *to visit*.

1. Он не ходит на лекции.
2. Посещаете ли вы семинары?
3. Вы были на выставке в Эрмитаже?
4. Правильно ли я вас понял (Am I to understand), что вы собираетесь посетить наш город?
5. Сколько людей посещает лекции в Университете?
6. Они никогда не ходят на наши семинары.

13. Insert the verbs *to advise* or *to consult*. Mind: you consult your manager (teacher); your manager advises something to you.

1. Did you ... your supervisor (scientific adviser) on this point?
2. What did he ... you to do?
3. Who ... you to use this method?
4. He had to ... the reference book.
5. I ... my doctor. He ... me to go to the South.

14. Translate the following sentences using the verbs in italics.

to consult

1. Я должен посоветоваться со своим руководителем (scientific adviser).
2. Вы должны посоветоваться с заведующим (manager) лаборатории.
3. Они не советовались со мной.

to advise

4. Кто посоветовал вам использовать этот метод?
5. Мой руководитель (supervisor, scientific adviser) советовал мне использовать другой метод (another approach).
6. Я советую вам проверить (to check) свои данные еще раз.

15. Give a short answer to the following questions and then add some details using the verbs *to consult* or *to advise*.

Example: Did you consult your teacher on the subject of your work?
Yes, of course. I always consult him when I encounter some difficulties. He advised me to use another approach.

1. Do you often consult reference books?
2. Did your supervisor advise you to read your paper at the conference?
3. When do you consult the dictionary?
4. Did the doctor advise you to take your leave now?
5. Are you going to consult your scientific adviser on how to do the calculation?

16. Translate the following sentences paying special attention to the parts in italics.

1. As far as I know, Dr N. went to Moscow *on business.*
2. Am I to understand that your scientific adviser is *on leave* now.
3. From what he said I learned that he was going *on an excursion* to Novgorod.
4. According to what he said, he visited many places of interest *while on his trip* to the Crimea.
5. For all I know he *is on an expedition* in the North.

17. Answer the following questions using the expressions *to be (to go) on business, to be on leave, to be (to go) on an expedition (to, at, in), to be on a trip (to),* etc.

Example: Where is Dr. N.? (business).
He is away on business.

1. Where is the secretary? (leave).
2. Where is your scientific adviser? (expedition to the North).
3. Where is the manager of your laboratory? (trip to England).
4. Where are your laboratory assistants? (business).

18. Translate into English.

1. Он в отпуске.
2. Она поехала в экспедицию.
3. Правильно ли я вас понял (Am I to understand), что вы собираетесь в командировку в Англию?
4. Я не поеду завтра на экскурсию.
5. Ездили ли вы в экспедицию в прошлом году?
6. Вы отдыхали (to be on holiday) в Крыму (in the Crimea) или были в командировке?
7. Во время моей поездки в Англию я познакомился (to get acquainted with) с работой их лаборатории.

19. Change the following sentences from Active into Passive.

Example: The story impressed me greatly.
I was greatly impressed by the story.

1. The sights of Leningrad impressed me deeply.
2. The novel impressed my wife greatly.
3. The book did not impress me at all.

4. The high standard of work at that plant impressed the visitors.
5. Did the news impress you?

20. Translate into English using the expression *to be impressed (by)*.

1. На меня оказало большое впечатление то, что я услышал из вашего доклада.
2. На нас оказало большое впечатление то, как (the way) он провел опыт.
3. На слушателей (the audience) оказало большое впечатление то, что сообщил докладчик.
4. На меня произвело большое впечатление то, что я узнал (learn) во время моей поездки.
5. На него произвело большое впечатление то, что он увидел в нашей лаборатории.

21. Translate the following sentences paying attention to the link-verb.

1. Are you familiar with modern views on atomic structure?
2. I got familiar with Darwin's theory while at school.
3. Am I to understand that he is interested in dynamics?
4. He got interested in dynamics when a boy of 14.
5. He wasn't acquainted with my work when he wrote his thesis.
6. He got acquainted with our work after he had read our paper.

22. Translate into English.

1. Знакомы ли вы с современными гипотезами о происхождении планет?
2. Когда вы познакомились с теорией происхождения видов?
3. Почему вы заинтересовались нашей работой?
4. Он очень (greatly) интересуется нашими результатами.
5. Правильно ли я вас понял, что вы не знаете наших работ.

23. Answer the following questions using the words in italics.

Example: Are you *acquainted with* Dr. N.?
Sorry, I'm not. But I'm acquainted with his theory.

1. I suppose you *are familiar with* modern views on the origin of the Universe, aren't you?

2. Am I to understand that you *devote much time to* experimental work?
3. I wish to know whether you *are of the opinion* that my results agree fairly well with the theory.
4. Will you tell me when you *got acquainted with* the main laws of thermodynamics?
5. Do you *base* your conclusions *on* theory?
6. What is your *opinion on* the new approach we used?
7. Does your approach *differ* from that used in Minsk? In what respect does it differ?

24. Paraphrase the following sentenses using the expressions ***in one's opinion, to be of the opinion that..., to be of the same (of a different) opinion on some point, to differ in opinion on some point.***

Example: I think (that) the theory works well.
I am of the opinion that the theory works well.
In my opinion it works well.

1. I quite agree with you on what you say.
2. To my mind, your approach will give reliable results.
3. They don't agree with each other.
4. Their opinions on the origin of life were quite different.
5. I'm afraid we must use some other approach.

25. Insert prepositions where necessary.

A

1. Charles Darwin devoted much time ... the study of natural history.
2. He went ... a geological expedition.
3. He was much impressed ... what he learned.
4. He was familiar ... modern views ... the origin of Galaxy.
5. He consulted ... an English botanist ... this point.
6. They differ ... opinion ... this subject.
7. He based history ... reliable facts.

B

8. I was greatly impressed ... the sights ... the city.
9. My fellow-worker and I are going ... a scientific expedition... the South.
10. We devote much efforts ... experimental work.
11. I got familiar ... the theory ... the descent ... man while ... school.

12. Is Dr. Brown here? No, he is away ... business.
13. He is ... the opinion that the facts are reliable.
14. ... my opinion their approach is wrong.

26. Answer the following questions.

A

1. What was Charles Darwin?
2. Can you tell me where he was born?
3. Do you happen to know who his father was?
4. Will you tell me under whom Darwin studied at Shrewsbury school?
5. How long did he attend school?
6. What did he do after attending school?
7. He was interested in the study of natural history, wasn't he?
8. On what expedition did he go?
9. Darwin corresponded with many scientists, didn't he?
10. Why is his correspondence with Asa Grey of great interest to us?
11. Whom did Lyell consult?
12. What did Lyell and Hook recommend Darwin?
13. Were Darwin and Wallace of the same opinion on all the problems concerning the theory of evolution?
14. What is your opinion on Darwin's main contributions to science.

B

15. When were you born?
16. Tell us who your father is.
17. You attended school in Leningrad, didn't you?
18. Have you ever attended English classes?
19. Under whom did you study at the University (Institute)?
20. You often go on business trips, don't you?
21. What impressed you most when you joined your laboratory?
22. Are you familiar with Darwin's views on the descent of man?
23. When did you get familiar with Mendeleyev's views on the periodicity of elements?
24. Have you already collected and arranged necessary data (facts, observations)?
25. When do you consult your supervisor (scientific adviser)?

27. Retell the text using some of the expressions given below.

1. The title of the text is...
2. As you can see (as can be seen) from the title, it is about (it is concerned with, it is devoted to, it deals with)...
3. I found the text rather interesting (difficult) because I learned a great deal about...
4. The author starts by telling the reader (by acquainting the readers with)...
5. According to the text...
6. According to what the author says (writes)...
7. According to what I knew before...
8. As far as I could gather (understand) from the text...
9. As far as I could learn from what the author says...
10. From what the author says it becomes clear that (I could see that, I could understand that, I learned that)...
11. The author finishes by telling the readers (finishes his paper by informing the readers)...

28. Construct sentences using the following words and expressions.

1. To study (to work, to do research) under somebody.
2. To consult somebody on some point.
3. To attend lectures (school, a conference, classes).
4. To be appointed (head, director).
5. To go on an expedition (on a trip, on business).
6. To be impressed by something (by what one sees, etc.).
7. To develop a theory (a method, a procedure).
8. To be familiar with somebody (something).
9. A joint paper (prize winner).
10. To differ in opinion on some point.
11. To work out an explanation (a theory, an approach).
12. To collect and arrange facts (data, observations).
13. Learned society (secretary).

29. Construct sentences of your own using the following antonyms.

1. To consult somebody on some point — to advise somebody (to give consultation to somebody on some point).
2. To learn — to teach.

3. To differ in opinion with somebody on some point (to be of a different opinion) — to be of the same opinion on some point.
4. To appear — to disappear.
5. To abandon (to reject) a theory (a hypothesis, an approach) — to accept a theory (a hypothesis, a method)
6. To be a failure — to be a success.
7. To start work (studies, experiment) — to complete work (studies, research).
8. To attend lectures (lessons, classes) — to miss (to stay away from) lectures (lessons, sittings).

30. Translate the following sentences using the words in italics.

to devote (to)

1. Кому посвящена эта рукопись?
2. Он посвятил все свое время исследованиям.
3. Они отдали все свои силы (efforts) естественным наукам.

learned (adj.)

4. Кто ученый секретарь в вашем институте?
5. Он выступал в научном географическом обществе.
6. Это научный кружок (society)?
7. Он очень (highly) образованный (знающий) человек.

to start

8. Когда отправляется поезд?
9. Они сразу начали свою работу.
10. Он завел блокнот.
11. Он начал свой доклад с (by) короткого вступления (исторического введения).

to enter something (without any preposition)

12. Он не входил в комнату.
13. Моя дочь уже поступила в университет.
14. Я поступил в институт в 1967 году.

to consult somebody (something) (without any preposition)

15. Вы должны посоветоваться с врачом.
16. Вы смотрели словарь? (Вы обращались к словарю?)
17. Когда вы поговорите со своим руководителем?

to attend (something) (without any preposition)

18. Он не посещает английских занятий (classes).
19. Вы были на прошлой лекции?
20. На нашем семинаре присутствовало 44 человека.
21. Моя дочь ходит в школу.

to develop

22. Он разработал новый метод.
23. Они выдвинули смелую (bold) гипотезу.
24. Мой сын проявляет большой (great) интерес к (in) математике.
25. Проявили вы свои фотопленки (films)?

31. Translate into English.

1. Под чьим руководством занимался Дарвин?
2. Под руководством профессора N. наш институт стал крупным (important) научным центром.
3. Группа (team) профессора Н. проводит интересные исследования.
4. Когда П. был выбран (назначен) профессором?
5. Кто назначен директором вашего института?
6. На Дарвина произвело большое впечатление то, что он видел в Южной Америке.
7. Картины Рембрандта всегда производят на меня глубокое впечатление.
8. Что вам больше всего понравилось (произвело на вас самое большое впечатление) во время вашей поездки?
9. Его доклад широко обсуждался.
10. Имя Павлова широко известно за пределами нашей страны (outside this country).
11. Кто разработал эту теорию?
12. Теория, разработанная Дарвином, не была общепризнана.
13. На Дарвина оказала большое влияние работа Мальтуса.
14. Советовались ли вы со своим руководителем?
15. Что посоветовал вам ваш руководитель?
16. Кто посоветовал вам вступить в (to join) клуб?
17. Советовал ли вам ваш преподаватель прочитать эту статью?

18. Посоветуйтесь со своими товарищами по работе (fellow-workers).
19. Я написал совместную с Н. статью по теме (subject) моей работы.
20. Когда вышла эта книга?
21. Он уже собрал и привел в систему необходимые данные.
22. Они основывали свою теорию на собранных и приведенных в систему фактах.
23. Она потратила много денег на поездку.
24. Он провел три года за собиранием рукописей.
25. По моему мнению, он знаком с этой теорией.

Text 3

THOMAS HUNT MORGAN

Thomas Hunt Morgan is one of the chief founders of modern genetics. An authority on embriology, evolution, genetics and heredity, his theory of the gene is generally accepted.

His interest in biology declared itself while an undergraduate at the Kentucky College of Agriculture and Mechanical Arts (now the University of Kentucky), from which he graduated in 1886. It matured at the Hopkins University, where he studied embriology under W. K. Brooks.

In 1904 he was appointed professor of experimental zoology at Columbia University. There he carried on experimental studies in the laws and mechanism of heredity. His work in genetics came to centre on problems of the physical basis of heredity in the venegar fly *Drosophila*. Soon a group of graduate students and assistants was at work in what became famous as the "fly-room" in the Department of Zoology, in which the processes of inheritance in this small, rapidly breeding insect were so thoroughly analyzed that by 1915 the main outlines of the chromosome theory of heredity had been laid. His observations formed a basis for a complete theory of paired elements, "factors" or "genes", within the chromosome which are

responsible for the transmition of heredity. The nature of these genes, constituted the chief subjects of his research. This general theory of transmission mechanism of heredity was clearly the most important step in the development of the science of genetics since Mendel's publication in 1866. Morgan's masterly summary of this published in 1826 as the theory of the gene listed the new principles added to genetics by the discoveries of his school.

All subsequent work in transmission genetics has been based upon reasoning and the evidence provided by Morgan's school.

After his departure from Columbia University, where this groundwork had been laid, Morgan's interests returned to problems of embriology, while his former students and associates continued to develop his fundamental work in genetics.

Morgan was awarded the 1933 Nobel prize in physiology and medicine for his outstanding discoveries concerning the laws and mechanism of heredity. In 1939 he won the Copley Medal of the Royal Society for his development of the study of genetics. He was the author of a great many books, monographs and papers.

Exercises

1. Give an adequate translation of the sentences below paying special attention to the parts in italics.

1. Morgan is *an authority on* embriology.
2. His interest in biology declared itself *while an undergraduate* at the Kentucky College.
3. He *studied* embriology *under* W. K. Brooks.
4. His work in genetics *came to centre on* problems of the physical basis of heredity.
5. A group of graduate students *was at work* in the Department of Zoology.
6. His *former* students and associates continued *to develop* his fundamental work in genetics.

2. Translate the sentences below, then find the logical object to the verb in italics and give the general formula verb+object.

Example: This work *was done* in our laboratory.
To do work.

1. Morgan's theory of the gene *is* generally *accepted*.

2. The processes of inheritance *were* so thoroughly *analysed* that by 1915 the main outlines of the chromosome theory of heredity *had been laid.*
3. All subsequent work in transmission genetics *has been based* upon reasoning and the evidence *provided* by Morgan's school.

3. Insert words and expressions from the text.

1. Morgan is one of the ... of modern genetics.
2. He is an ... on embriology.
3. His theory of the gene is ... accepted.
4. He got interested in biology while an ... at the Kentucky College.
5. In 1904 he was ... professor of experimental zoology. At the University he ... experimental studies in the laws of heredity.
6. His observations formed the basis for a ... theory of genes.
7. The processes were ... analysed.
8. The nature of these genes ... the chief subject of his research.
9. All ... work in transmission genetics has been based upon reasoning and the evidence ... by Morgan's theory.
10. After his ... from Columbia University he continued studying problems of embriology.
11. His former students and ... continued to ... his fundamental work in genetics.
12. Morgan was ... the Nobel prize.
13. In 1935 he ... the Copley medal for his ... of the study of genetics.

4. Paraphrase the sentences below substituting words and expressions from the text for those in italics.

1. His interest in biology *showed itself* while he studied at the Kentucky College.
2. He *took his degree* in 1886.
3. In 1904 he *was made* professor at Columbia University.
4. He *did* experimental research in (into) the laws of genetics.
5. His work in genetics *concentrated on* problems of great importance.

6. Morgan's summary *was issued* in 1926.
7. *After he left* Columbia University he resumed his work on problems of embriology.
8. His former pupils and co-workers *proceeded* to develop his fundamental work in genetics.
9. Morgan *won* the 1933 Nobel prize in physiology and medicine.
10. He won the Copley medal for his *important contributions* to the study of genetics.

5. Insert prepositions.

A

1. Morgan was an authority ... embriology and related branches ... science.
2. His interest ... pure science was striking.
3. He early got interested ... applied science.
4. Morgan did embriology ... W. K. Brooks.
5. He carried ... extensive studies ... (the field ...) genetics.
6. His work ... botany came to centre ... general problems ... species.
7. A group ... graduate students and postgraduates is ... work ... this problem.
8. His observations formed a basis ... a complete theory.
9. All subsequent work ... genetics has been based ... reasoning and the evidence provided ... Morgan's school.
10. Morgan was awarded a Nobel prize ... physiology ... his outstanding discoveries ... the laws of heredity.

B

11. My manager is an authority ... genetics (theoretical physics, chemistry, etc.).
12. As to me, I am interested ... biology (statistics, mechanics, mathematics, etc.).
13. My brother showed interest ... geology (zoology, archeology, art, etc.) while an undergraduate.
14. Now his interest is centered ... problems ... biochemical processes.
15. I do my postgraduate work ... the Institute ... Zoology ... Leningrad. I did my undergraduate work ... the University ... professor Black.

16. One of my associates was awarded the Lenin prize ... botany ... his important contribution.
17. The theoretical staff ... our department are ... work summarizing the results ... their calculations.
18. I am expected to base my investigation ... experimental evidence and theoretical reasoning.
19. His studies ... Dr. Brown formed a basis ... further investigation ... (the field ...) botany.
20. He returned ... his work ... 1967.

6. Answer the following questions. Pay attention to the verb *to take*.

1. Where have you taken your degree?
2. When are you going to take your holiday?
3. Who took the first prize in the last game?
4. Do you take interest in art?
5. Does your friend take great interest in science?
6. How long did it take you to translate the paper?
7. Do your experiments take much time?
8. How long will it take you to get through with your experiment?
9. Did it take you long to get ready for your exam in German?
10. When are you going to take your examination in English?
11. When did your friend take post-graduate studies?
12. When did you decide to take up biology (chemistry, physics, botany, embriology) as your field?
13. Do you take an active part in the seminars which are held in your laboratory?
14. Where do you take your postgraduate course?

7. Answer the following questions. Use the verb *to take* in every answer. See for reference exercise 6.

Example: What were you doing yesterday?
I was reading for my examination in physics.
I am going to take it in a month.

1. Do you work hard at your English?
2. Who are you?
3. What University did you graduate (from)?
4. Why did you stay away from classes the last two weeks?
5. Why do you look so tired? Do you work very late?
6. Did you attend the last seminar?

7. Did you find it difficult or easy to translate the article from the newspaper?
8. Do you find it worthwhile reading this book? There are so many words which are unfamiliar to you.

8. Translate the following sentences using the verb *to take*.

1. Она очень интересуется исследовательской работой.
2. Мой опыт занял три часа.
3. Сколько нужно времени, чтобы закончить (to complete) опыт?
4. Сколько вам потребовалось времени, чтобы доехать до (to get to) Новосибирска?
5. Кто снял показания (the readings)?
6. Она еще не сдавала экзамена по (in) физике (химии и т. д.).
7. Когда он поступил в аспирантуру?
8. Она решила поступить в аспирантуру.
9. Когда он занялся физиологией (географией, медициной, наукой)?
10. Я пойду в отпуск в июле.
11. Он не принимал участия в обсуждении этого вопроса.
12. Проверка данных берет у меня много времени.
13. Ему потребовалось два месяца для того, чтобы собрать (to mount) установку (device, apparatus, assembly).

9. Translate the following sentences using the verbs given in brackets.

A

1. Кончили ли вы свой опыт? (to finish).
2. Какой университет вы окончили? (to graduate).
3. Он кончил школу 7 лет назад. (to leave).
4. Они кончили читать. (to finish + gerund).
5. Оратор (the speaker) закончил, выразив благодарность (to express gratitude to) аудитории (the audience). (to finish + by + gerund).
6. Заседание кончается в 5 часов. (to be over).

B

7. Он проводит много времени за чтением. (to spend ... in).
8. Я провожу исследования в лаборатории. (to carry on, research, to do research).

9. Заведующий (the manager) провел меня в свой кабинет. (to show somebody to).
10. Секретарь провел меня по всем лабораториям. (to take somebody round, to show somebody round).
11. Мы проводим много опытов. (to perform, to do, to make, to carry on).
12. Я уезжаю (to leave) очень рано. Не приходите провожать меня. (to see somebody off).

C

13. Моя дочь занимается в музыкальной школе. (to study).
14. Занимается ли он английским? (to study).
15. Профессор X. занимается проблемами твердого тела. (to be engaged in, to investigate, to study).
16. Мой друг будет заниматься физикой в институте. (to take up, to do, to study).
17. Занимается ли он в аспирантуре? (to take a postgraduate course, to do a postgraduate course, to do postgraduate studies).
18. Что делает сейчас ваш лаборант (laboratory assistant)? Он занимается подготовкой к опыту. (to be busy + gerund).
19. Ученый занимается научной работой. (to be engaged in, to do research).
20. Наша лаборатория занимается интересными исследованиями. (to be engaged in, to do research).
21. Занимается ли ваш брат спортом? (to go in for).
22. Он занимается химией в университете. (to study, to do).

D

23. Он читает лекции в университете. (to give, to deliver).
24. Много ли вы читаете? (to read).
25. Он прочитал доклад. (to read a paper).

E

26. Он сделал интересный доклад. (to read).
27. Он сделал грубую (bad) ошибку. (to make).
28. Когда он сделает свое сообщение? (to give a talk).
29. Он не сделал упражнения. (to do).

F

30. Моя дочь поступила в английскую школу в прошлом году. (to go).

31. Я поступил в университет. (to enter).
32. Он поступил в научный кружок. (to join).
33. Они поступили на работу в наш институт. (to come to work, to begin to work).
34. Когда вы поступили в аспирантуру? (to take up the postgraduate course).
35. Я не знаю, как поступить. (what to do).

10. Use the following phrases in sentences of your own.

Example: While on the excursion to...
I visited many places of interest while on the excursion to London.

1. While an undergraduate...
2. While a student...
3. While a postgraduate...
4. While a schoolboy (schoolgirl)...
5. While at school...
6. While at the University (at the Institute)...
7. While in Moscow...
8. While on the trip to...
9. While on the expedition to...

11. Complete the following sentences and say them fluently.

Example: My scientific adviser was awarded...
My scientific adviser was awarded the Lenin prize for his outstanding contribution to Plasma physics.

1. My wife graduated (from, at)...
2. My interests centre on...
3. The chief subject of...
4. I base my experiments on...
5. My supervisor is the author of...
6. He is an authority on...
7. We accepted the theory of...
8. Our team makes a thorough analysis of...
9. I carry on...

12. Construct sentences of your own using words and expressions in italics.

Example: He *carried on* experimental studies in the laws of heredity.
I carry on theoretical research.

1. His work in genetics *came to centre* on problems of heredity.
2. A group of undergraduate students *is at work* in our laboratory.
3. The process *was thoroughly analysed.*
4. *The main outlines* of Morgan's theory became known in 1915.
5. His observations formed the basis for *a complete theory* of paired elements.
6. All subsequent work in genetics *has been based* upon reasoning provided by Morgan's school.
7. In 1904 he *was appointed professor* of experimental zoology.

13. Answer the following questions.

A

1. What is Morgan distinguished for?
2. Which is the generally accepted theory of genetics?
3. Under whom did Morgan study embriology?
4. In what field did he carry out experimental studies?
5. What insect did he choose in order to do research into the physical basis of heredity?
6. When did he give the main outline of his theory?
7. What did his observations enable him to do?
8. What was the chief subject of his research?
9. Did he develop a special or general theory of heredity?
10. What did his former students and associates do after he left Columbia University?
11. What prize was Morgan awarded?
12. What won him the Copley Medal?
13. Do you know whether Morgan wrote any books or monographs?

B

14. Who is the chief authority on evolution and genetics (nuclear physics, organic chemistry) in this country?
15. Do you happen to know whether Morgan's theory is accepted at your Institute?
16. When did you graduate (from) the University?
17. Will you remind me who was appointed director of your Institute?
18. Will you remind me what studies you carry on?

19. Will you tell us what your interests are centred on?
20. Can you tell me what your associates are interested in?

14. Agree or disagree to the following statements.

Example: I know (that) your Institute trains postgraduate students.
Yes, you are right. Besides, our Institute does research.
No, I see you are missinformed. Our Institute does not train postgraduate students. It trains only undergraduates.

1. I learned (that) the evolution theory is generally accepted in this country.
2. I found that almost all teachers combine activities in research with experimental work.
3. I believe you base your experiments on theoretical considerations.
4. Am I to understand that the manager of your laboratory is an authority on mathematics (physics, philosophy, etc.)?
5. According to what I've been told, every postgraduate of your laboratory is working at the same problem.

15. Insert one of the words given in brackets.

Example: I find the subject of your work very... I got ... in the subject of your work. (interesting, interested).
I find the subject of your work very interesting. I got interested in the subject of your work.

1. Mathematics is very... I am greatly ... in it. (interesting, interested).
2. The sight of the mountain was very... I got much ... by it. (impressive, impressed).
3. The book is really... I got quite ... by it. (boring, bored).
4. I got deeply ... in chemistry. I find it very... (interesting, interested).
5. The number of people was... Everybody was ... by the speech. (impressive, impressed).

6. I am really deeply ... in the results of your experiments. They are very... (interesting, interested).

16. Insert *interest, interesting, interested.*

1. He takes great ... in the experiment.
2. Did he show any ... in your suggestion?
3. Is this problem of particular...?
4. What is your opinion on our work? Do you find our research...?
5. His suggestion is of...
6. What about you, are you ... in their achievements?
7. His ... in the subject is striking.
8. I am particularly ... in the technique of your experiment.

17. Translate into English.

1. Эта статья весьма (rather) интересна.
2. Меня интересует его мнение.
3. Меня утомил его доклад.
4. Я нашел его доклад утомительным (скучным).
5. Цифра была очень внушительна.
6. На меня оказало большое впечатление его сообщение.
7. Его не интересует проблема, о которой идет речь (in question).
8. Я нахожу, что проблема, о которой идет речь, очень интересна.

18. Insert the adjective or the adverb given in brackets.

1. My colleagues were ... interested in what you had said. (great, greatly).
2. The visitors showed ... interest in our research. (great, greatly).
3. Professor D. and his people contributed ... to science. (large, largely).
4. Do your results agree ... with the accepted theory? (good, well).
5. His results showed ... agreement with your theory. (good, well).

19. Give a full affirmative answer to the following questions using the adverb or the adjective given in brackets.

Examples: 1) Are you ... interested in biology? (great, greatly).

Yes, I am greatly interested in it.

2) Do you take any interest in experimental physiology? (great, greatly).

Yes, I take great interest in it.

1. Did you study the phenomena involved in metabolism? (thorough, thoroughly).
2. Do you make a study of these processes? (thorough, thoroughly).
3. Have you made any mention of our work? (brief, briefly).
4. Did Pavlov's work influence experimental physiology? (profound, profoundly).
5. Do your results show agreement with the theory? (good, well).
6. Did Morgan contribute to natural science? (large, largely).
7. Does your son take any interest in physics? (great, greatly).
8. Has the speaker mentioned my experiments? (brief, briefly).
9. Do you check your data? (thorough, thoroughly).
10. Did Morgan make any contribution to our knowledge of heredity? (large, largely).
11. Does your hypothesis agree with the theory? (good, well).
12. Are you interested in research? (deep, deeply).

20. Translate the following sentences using the gerund.

Examples: 1) Менделеев внес большой вклад в науку тем, что показал (показав) закон периодичности.

Mendeleyev made his fundamental contribution to science by showing the Law of Periodicity.

2) Преподаватель начал свой урок с объяснения нового правила.

The teacher began his lesson by explaining a new rule.

1. Я хочу начать (to start) с демонстрации нескольких таблиц.
2. Он кончил свое сообщение тем, что поблагодарил своих сотрудников.
3. Позвольте мне начать с сообщения (to acquaint somebody with) о нашей методике (technique).

4. Председатель открыл заседание, поздравив всех участников.
5. Нам удалось провести свой опыт благодаря тому, что мы изменили (to modify) аппаратуру.
6. Многие ученые делают большой вклад в науку тем, что проводят лабораторные эксперименты.
7. Мне хотелось бы закончить, показав вам несколько диапозитивов (slides).

21. Translate into English.

1. Он автор многих книг и статей.
2. Кто основатель современной физики?
3. Он директор нашего института.
4. Он специалист по этому вопросу.
5. Согласились (to accept) ли вы с его точкой зрения?
6. Он не принял моего предложения.
7. Признана (to accept) ли эта теория?
8. Его заслуги общепризнаны (to recognize).
9. Чья теория теперь общепризнана?
10. Законы Ньютона общеизвестны.
11. Он провел тщательный анализ.
12. От тщательно проанализировал результаты измерений.
13. Он выработал законченную теорию.
14. Когда вы закончите свою диссертацию (thesis)?
15. Когда вы закончили университет?
16. Мои опыты далеко не (far from) закончены.
17. Проводите ли вы экспериментальные исследования?
18. Проведенные мною опыты дали (to provide with) мне необходимые данные.
19. Я основываю свои рассуждения на заключениях, которые дает (to provide) общая теория.
20. Я занимаюсь под руководством профессора Н.
21. У него большой интерес к биологии.
22. Его интерес к физике проявился, когда он учился в школе.
23. Они интересуются физикой. Физика очень интересный предмет.
24. Я заинтересовался его опытом. Он проводит очень интересные опыты.
25. Моего руководителя назначили директором нашего института.
26. Его назначение очень важно для нашего института.

27. Он известен как хороший певец.
28. Он известен как крупный специалист по (в области) общей химии.
29. Они знамениты своими работами по некоторым специальным вопросам теории жидкостей.
30. Эта обсерватория знаменита своим телескопом.

Text 4

FREDERIC HOPKINS

Hopkins, a famous English biochemist, was born in 1861 at Eastbourne, East Sussex, in England. He was educated at private schools and took his first training in the Laboratory of Consulting Chemist. In 1888 he began his medical studies at Guy's hospital. He combined activities in research with clinical work and after taking his degree at the University of London became a member of the staff of the medical school of Guy's hospital. In 1899 he was called by Sir Michel Foster to Cambridge where he joined the illustrious school of physiology which Foster was founding. In 1913 he became the first professor of the newly created department of Physical Chemistry at Cambridge.

He early realized that one of the urgent needs of biochemistry then entering its modern phase under Felix Hoppe-Seyler and Franz Hofmeister was accurate knowledge of the proteins.

He became known internationally for his important researches and discoveries in the fields of biochemistry and dietetics. His experiments with rats were the first of their kind that were scientifically planned and based on sound theoretical considerations. He succeeded (in association with S. W. Cole) in isolating from proteins the amino-acid triptophane.

In 1906, while a reader in chemical physiology, he announced the importance of vitamins as essential constituents of the health diet. In 1912 he published a report clearing up a few of the mysteries of nutrition. He did not himself isolate any of the vitamins of which he studied

the effects — chiefly A and B — but he is rightly regarded as the father of vitamin chemistry.

In collaboration with the late Sir W. Fletcher he did important research into chemical changes that accompany muscle contraction. He was a pioneer in the physiological study of muscular activity and carbohydrate metabolism. He laid the foundation of our knowledge of the chemistry of muscular contraction by his research into lactic acid production in muscle.

In 1921 Hopkins made his most fundamental contribution by isolating from living tissues the sulphur-containing depeptide glutation and by showing its importance for the oxidations in living cells.

In 1929 he was joint winner of the Nobel prize in physiology for his contribution on growth-promoting vitamins. He held many honorary degrees and memberships in numerous societies and academies.

Exercises

1. Give an adequate translation of the sentences below paying special attention to the parts in italics.

1. Hopkins *was educated at* a private school.
2. He *took his first training* in the Laboratory of Consulting Chemist.
3. He combined *activities* in research with clinical work.
4. *After taking his degree* at the University of London he *became a member of the staff* of the medical school.
5. He *joined* the illustrious school of physiology which Foster was founding.
6. He early realized *the urgent needs* of biochemistry.
7. Biochemistry was then entering its modern phase, *under* F. Hoppe-Seyler and F. Hofmeister.
8. In 1906 *while a reader in* chemical physiology he announced the importance of vitamins.
9. *In collaboration with* the late Sir W. Fletcher he did research into the chemical changes that accompany muscle contraction.
10. In 1929 he was *joint winner* of the Nobel prize in physiology for his contribution on growth-promoting vitamins.
11. He *held* many honorary degrees.

2. **Insert words and expressions from the text.**

1. Hopkins, ... English biologist, was ... in 1861.
2. Hopkins ... his first training in the Laboratory of Chemistry.
3. He ... activities in research with clinical work.
4. He ... his degree at the University of London.
5. Foster ... an illustrous school of physiology.
6. Hopkins was made the first professor of the newly ... department of Physical Chemistry.
7. He ... realized that one of the ... needs of biochemistry was ... knowledge of the proteins.
8. His experiments were based on sound theoretical...
9. He ... in isolating a new substance.
10. His report of 1912 ... a few of the mysteries of nutrition.
11. He ... important research into the chemical changes.
12. He ... the foundation of our knowledge of the chemistry of muscular contraction.
13. In 1929 he was ... winner of the Nobel prize in physiology.
14. He ... many honorary degrees.

3. **Paraphrase the sentences below substituting words and expressions from the text for those in italics.**

1. Hopkins was a *distinguished* biochemist.
2. He *received education* at private schools.
3. He *did his first studies* in the laboratory of Consulting Chemist.
4. In 1888 he *took up* his medical studies.
5. He *not only* did research *but* carried out clinical work.
6. He *graduated* (*from, at*) the University of London.
7. He *came to work* at the medical school of Guy's hospital.
8. He *was invited* by Sir M. Foster.
9. He *became a member of* the illustrous school of physiology.
10. He *held the position* of professor at the department *that had been created not long before.*
11. He *understood* the most important needs of biochemistry.
12. He *became world-famous for* his researches and discoveries.

13. *Working together with* Sir Fletcher he investigated some chemical changes.
14. His contribution on growth-promoting vitamins *won him the joint* Nobel *prize* in physiology.

4. Paraphrase the sentences below substituting one of the following verbs: *to explain, to realize, to graduate, to join, to come to work (at), to invite* for those in italics.

1. He *took his degree* at Oxford.
2. Two years ago he *became a member of the staff of* our department.
3. He *was called to* Oxford to give a course of lectures.
4. He *understood* the importance and urgency of the work.
5. Would you like *to become a member of* our club?
6. Your letter *cleared up* some facts which I did not know.

5. Insert prepositions where necessary.

A

1. Hopkins was educated ... private schools.
2. His activities ... research were generally recognized.
3. ... 1899 he joined ... the illustrious school ... physiology.
4. Biochemistry was then entering ... its modern phase.
5. Hopkins became world-known ... important researches and discoveries ... the field ... biochemistry.
6. He based his experiments ... sound theoretical considerations.
7. He succeeded ... isolating a new substance.
8. He was a reader ... chemical physiology.
9. He did important research ... the chemical changes that accompany muscle contraction.
10. He was joint winner ... the Nobel prize ... physiology ... his contributions ... growth-promoting vitamins.

B

11. I learned ... a school ... Leningrad.
12. My supervisor's activities ... experimental work are well-known.
13. Dr. N. combines deep theoretical knowledge ... great experimental skill.
14. My wife joined ... the laboratory two years ago.
15. While a student I joined ... a learned society.

16. My supervisor became known ... his paper issued ... 1960.
17. ... what field do you do research?
18. Do you base your work ... evidence provided ... experiment?
19. Last year I succeeded ... passing my entrance examination and was admitted to the Institute.
20. Who is your reader ... philosophy?

6. Answer the following questions.

A

1. Where did Hopkins receive his primary education?
2. Where did he take his first training? (Where did he do his first studies?)
3. Was he engaged in any activities outside his research?
4. Where did he take his degree?
5. What hospital did he come to work at?
6. What did Sir Michel Foster propose to him?
7. What was the urgent need of biochemistry at that time?
8. What was Hopkins famous for?
9. In what field of science did he work?
10. What experiments did he make with rats?
11. Why, do you think, the author of this article regards Hopkins as the father of vitamin chemistry?
12. What research did he do in collaboration with Fletcher?
13. What fundamental contribution did he make in 1921?
14. What won him the Nobel prize?
15. What degrees did he hold?

B

16. Where did you receive education?
17. Did you join any scientific society while at school (while at the Institute)?
18. Where did you take your first training?
19. Where did you take your degree?
20. What Institute did you come to work at after graduation?
21. What activities are you engaged in?
22. In what field of science do you carry on research?
23. What do you base your experiments (calculations, considerations) on (upon)?

24. Do you combine activities in research with experimental work?
25. How do you plan your experiments?
26. Do you work alone or in collaboration with your fellow-workers (colleagues)?
27. Can you tell me what the urgent needs of biochemistry (physics, physiology, geology, botany, astronomy) are nowadays?

7. Give a talk on Hopkin's life and work. Use the expressions given below.

1. I wish to aquaint you with...
2. I suppose you know (that)...
3. I hope you'll find it of interest to learn (that)...
4. I wish to remind you (that)...
5. I would like to start by describing (by telling you, by informing you)...
6. According to what I know...
7. It should be mentioned (that)...
8. I would like to emphasize (that)...
9. I'll turn now to the discussion of...
10. As to me, I am of the opinion (that)...
11. I wish to finish by emphasizing (that)...

8. React to the wrong statements below using some of the following introductory phrases: *you are not quite right, you are mistaken, you are wrong, it is not quite so, it would be wrong to say so, I can't agree with you, just the reverse.*

Example: If I am not mistaken, Hopkins was a well-known chemist.
No, it's not quite so. As far as I know (as a matter of fact) Hopkins wasn't a chemist. He was engaged in biochemistry and was a famous biochemist.

1. Can you clear up one point to me? Is it really so that Hopkins came to work at the medical school of Guy's hospital before graduation?
2. I believe that Hopkins was fully engaged in theoretical work. Is it really so?
3. I thought it was Hopkins who invited Forster to Cambridge.

4. I was of the opinion, that biochemistry enters its modern phase nowadays.
5. To my mind, Hopkins' experiments with rats (on rats) are of no interest to us.
6. As far as I've heard, Hopkins is regarded as the father of vitamin chemistry. This gave me the idea that Hopkins must have isolated some of the vitamins.

9. Give an extensive answer to the following questions making use of the words in brackets.

Example: Is the Institute you work at engaged only in research? (to train postgraduate students; to combine; to take training).

No, it is not quite so. It combines activities in research with experimental work. Besides it trains postgraduate students. As to me, I took my first training under professor N. who is a member of the staff of this Institute.

1. What employment did your friend take after he graduated (from, at) the University? (to call; to become a member of the staff; to combine research with educational work; in the field of).
2. Why have you decided to take up biology (physics, chemistry, astronomy, physiology, botany) as your profession? (you see, while at school; to join; to give the matter a thorough consideration).
3. How is your work progressing? (not bad; to succeed; to base; to work in collaboration; a joint paper).
4. Is your supervisor (scientific adviser) a prominent scientist? (yes, rather; to hold honorary degrees; to make contribution to; to do research into; to create).
5. Have you got much work to do? (yes, rather; urgent; to take postgraduate studies; to combine one's studies with experimental work).
6. How did your coworker learn English? (by studying hard; after graduating; to join; the newly created; to work under; to realize the importance).

10. Use the following synonymous groups in sentences of your own.

1. To be educated at — to receive education.
2. To graduate (from, at) — to obtain one's degree at (from).

3. To be associated with — to collaborate with — to work in collaboration with.
4. To win a prize — to be awarded a prize.
5. To deliver a lecture — to give a lecture.
6. To be recognized — to win recognition.

11. Use the following groups of words in sentences of your own.

1. To make an approach.
2. To make calculations, to make a conclusion.
3. To make a contribution (to).
4. To make a discovery.
5. To make an experiment («to do an experiment» is also used).
6. To make an impression.
7. To make an investigation.
8. To make a list.
9. To make measurements.
10. To make a mistake.
11. To make observations.
12. To make a study.
13. To make a suggestion.
14. To make a summary.
15. To make use (of).

12. Paraphrase the following sentences using the verb *to make*.

Examples: 1) He won't use this substance.
He won't make use of this substance.
2) His talk impressed me deeply.
His talk made a deep impression on me.

1. He contributed largely to science.
2. He discovered a new phenomenon.
3. They thoroughly investigated these substances.
4. He studied this phenomenon extensively (thoroughly, accurately).
5. Did you use this substance widely?
6. He answered quickly.

13. Translate the following sentences using the verb *to make*.

1. Он проводит исследование (investigation).
2. Составьте список участников конференции.

3. Я поставил ряд опытов.
4. Позвольте мне подвести итог (summary).
5. Она сделала две ошибки.
6. Он сделал важное открытие.
7. Когда вы будете делать измерение?
8. Бора назначили профессором теоретической физики.
9. Астрономы ведут наблюдения.
10. Вам надо было сделать вычисления сначала (first).
11. Бор много сделал для науки.
12. Какое предложение (suggestion) вы хотите сделать?

14. Answer the following questions using the verb *to make*.

Example: Why did you stay away from the lesson?
I'm awfully sorry. I was making my experiment.

1. Did you take any part in the last seminar?
2. Why has the teacher given you a three for your test-paper?
3. How are things getting on?
4. Why was doctor X. awarded a Lenin prize in chemistry (physics, botany, zoology, etc.)?
5. Have you ever heard of your friend (fellow-worker) taking an employment at the University?
6. Do you hope to succeed in your work?
7. Do you carry on experimental work?
8. What is Roentgen's most fundamental (important) contribution to science?
9. How do you plan your experimental work?
10. What do astronomers do?

15. Answer the following questions using the verb *to do*.

1. Have you got much work to do?
2. Have you done your exercises?
3. I wish to know what research you do.
4. You do postgraduate studies under Dr. Brown, don't you?
5. Where did you do mathematics?
6. What kind of experiments do you do? («to make experiments» is also possible).

16. Translate the following sentences using the verb *to do*.

1. Он изучает физику (ботанику и пр.).
2. Он делает уроки.

3. Я занимаюсь в аспирантуре.
4. Мне надо сделать много (a lot of) работы.
5. Ей надо сделать много упражнений.
6. Они проводят исследования (research).

17. Insert the verb *to do* or *to make*.

1. I've got a lot of work...
2. He's got a lot of measurements...
3. I've a suggestion...
4. She's got many exercises...
5. I've got a lot of calculations...
6. I have to ... another approach.
7. May I ... a suggestion?
8. He is interested in ... research.
9. They are tired of ... this work.
10. Did he ... physics under Dr. B.?
11. Are you fond of ... experiments?

18. Translate the following sentences using the verbs *to do* or *to make*. See for reference exercises 11 and 15.

Examples: 1) Делать наблюдения — to make observations.
2) Сделанные нами наблюдения — observations made by us.
3) Делать, проводить работу — to do work.
4) Сделанная им работа — the work done by him.

1. Он сделал большую часть (a large piece of) работы.
2. Я заинтересовался проведенной вами работой.
3. Проводить (делать, ставить) опыт.
4. Я провел мало опытов.
5. Поставленные (сделанные) нами опыты показали...
6. Делать замечания.
7. Он сделал кое-какие замечания (on) по моей работе.
8. Делать заключение.
9. Он сделал заключение, что...
10. Сделанное вами заключение неверно.
11. Делать ошибки.
12. Он не сделал ошибок в своем вычислении.
13. Сделанная вами ошибка привела к неверным результатам.
14. Вы не заметили сделанной вами ошибки.

15. Делать открытие.
16. Он сделал большое открытие.
17. Он получил Ленинскую премию за сделанное им открытие.
18. Делать упражнение.
19. Он сделал много упражнений.
20. Сделанные им упражнения помогли ему понять правила.

19. Translate the following sentences making use of the words in italics.

to call

1. Как называется этот элемент?
2. Их пригласили в Лондонский университет читать лекции.
3. Позовите секретаря.

joint (adj.)

4. Они написали совместную статью.
5. В результате объединенных усилий (efforts) ученые решили (to solve) эту задачу.
6. Они сделали совместный доклад.
7. Профессор А. и профессор В. оба являются лауреатами Ленинской премии. Они получили премию за общую работу.

to hold

8. Он держит термометр в руке.
9. Он имеет несколько ученых званий.
10. У него было много почетных званий.
11. Собрание проходило в Москве. (Give a passive construktion).
12. Этот закон справедлив (имеет силу) только для идеальных газов.

20. Translate into English.

1. Я начал изучать химию в институте.
2. Моя жена начала заниматься филологией под руководством профессора Б.
3. Они начали работать в клинике (в лаборатории) два года тому назад.
4. Он совмещал исследовательскую работу с работой в клинике.

5. Совмещает ли он научную деятельность с педагогической (educational work)?
6. Инертные газы не соединяются с кислородом.
7. Его пригласили в Кембридж читать лекции по биологии (химии, физике).
8. По окончании университета он стал преподавателем.
9. Окончив университет, он поступил (to join) в нашу лабораторию.
10. Окончив (to leave) школу, мы поступили (to enter) в институт.
11. Кто вошел в ту комнату?
12. Поступила ли она на физический факультет?
13. Это была одна из важных (неотложных) проблем биохимии.
14. Он испытывал (to feel) нужду в (of) деньгах.
15. Он понимал необходимость в таких приборах.
16. У меня срочная работа. (Я должен сделать срочную работу).
17. Это сообщение (message) срочно?
18. Вам надо иметь точные сведения.
19. Он тщательно проводит свои измерения.
20. Он всегда точен в своих опытах.
21. Он стал известен открытием в области биохимии.
22. Ньютон знаменит тем, что он открыл законы движения.
23. Гюйгенс известен тем, что разработал волновую теорию (wave theory) света.
24. Он основывал свои опыты на теоретических предпосылках.
25. На чем основываете вы свое мнение (заключение)?
26. Ему удалось выделить новое вещество.
27. Мне не удалось получить новых данных.
28. Удается ли вам совмещать общественную работу (social activity) с научной?
29. Его доклад разъяснил мне некоторые неясные вопросы.
30. Им удалось разъяснить некоторые явления.
31. Читая лекции по биологии, он разъяснял (to make clear) значение витаминов.
32. Будучи студентом (когда я был студентом), я занимался (to do) физикой.
33. Будучи преподавателем, он организовал новую лабораторию.

34. Сотрудничая со своим другом, он провел важные исследования химических реакций протеина.
35. Он исследовал причину (to cause) этих изменений.
36. Он внес большой вклад в науку, показав значение витаминов для человека.
37. Он закончил тем, что поблагодарил всех присутствующих.
38. Позвольте мне начать с объяснения основных задач современной химии.
39. Он получил Нобелевскую премию совместно с известным физиком Н.
40. Я написал статью совместно с Н.
41. Они совместно выступали на сессии (joint speakers).

21. Speak about the manager of your laboratory, about yourself and about a business trip (see the Supplement).

SUPPLEMENT

Specialities

Astronomy [əs'trɔnəmɪ] — astronomer [əs'trɔnəmə]
Biochemistry ['baɪou'kemɪstrɪ] — biochemist ['baɪou'kemɪst]
Biology [baɪ'ɔlədʒɪ] — biologist [baɪ'ɔlədʒɪst]
Biophysics ['baɪou'fɪzɪks] — biophysicist ['baɪou'fɪzɪsɪst]
Botany ['bɔtənɪ] — botanist ['bɔtənɪst]
Chemistry ['kemɪstrɪ] — chemist ['kemɪst]
Cytology [saɪ'tɔlədʒɪ] — cytologist [saɪ'tɔlədʒɪst]
Economy [ɪ:'kɔnəmɪ] — economist [i:'kɔnəmɪst]
Electrical engineering [ɪ'lektrɪk(ə)l ˌendʒɪ'nɪərɪŋ] — electrical engineer [ˌendʒɪ'nɪə]
Geography [dʒɪ'ɔgrəfɪ] — geographer [dʒɪ'ɔgrəfə]
Geology [dʒɪ'ɔlədʒɪ] — geologist [dʒɪ'ɔlədʒɪst]
History ['hɪst(ə)rɪ] — historian [hɪs'tɔ: rɪən], specialist in history
Linguistics [lɪŋ'gwɪstɪks] — linguist ['lɪŋgwɪst]
Literature ['lɪt(ə)rɪtʃə] — specialist in literature
Mathematics [ˌmæθɪ'mætɪks] — mathematician [ˌmæθɪmə'tɪʃ(ə)n]
Mechanics [mɪ'kænɪks] — specialist in mechanics
Medicine ['medsɪn] — medical worker, physician [fɪ'zɪʃ(ə)n]
Philosophy [fɪ'lɔsəfɪ] — phylosopher [fɪ'lɔsəfə]

Phylology [fɪ'lɔlədʒɪ] — phylologist [fɪ'lɔlədʒɪst]
Physics ['fɪzɪks] — physicist ['fɪzɪsɪst]
Physiology [fɪzɪ'ɔlədʒɪ] — physiologist [fɪzɪ'ɔlədʒɪst]
Psychology [saɪ'kɔlədʒɪ] — psychologist [saɪ'kɔlədʒɪst]

List of Words and Expressions

A

(to speak about the manager of a laboratory, an Institute)

1. To be a well-known (distinguished, prominent, famous) scientist.
2. To be known (distinguished, prominent, famous) for...
3. To be engaged in different (all kind of) activities.
4. To be appointed (elected, made) director (head, manager, professor).
5. To hold a position of head (director, professor).
6. To be at the head of (to head, to run, to manage, to be in charge of) the Institute (laboratory, group, team).
7. To run seminars.
8. To give lectures in (a course of lectures in, a talk on)...
9. To go on business (expeditions).
10. To take part in (to participate in)...
11. To contribute to (to make an important, outstanding contribution to)...
12. To do joint (important, outstanding, excellent, far-reaching) research into (in, on)...
13. To make a thorough (accurate, complete) study (investigation).
14. To advance (to propose, to develop, to put forward, to suggest) an idea (a hypothesis, an approach, a theory).
15. To develop a hypothesis (a method, a theory, an approach).
16. To work out an approach (explanation).
17. To seach for (to find, to use, to adopt) a new (another, better) approach (technique).
18. To obtain a lot of experience (data, information, knowledge) through one's work (research, study, experiments).
19. To be generally recognized.
20. To recognize one's achievements (contribution).
21. To win general (due) recognition.

22. To win (to be awarded, to be given, to receive) a prize (an award) for some work in some field.

B

(to speak about a business-trip)

1. To work at some Institute.
2. To be interested (in).
3. To go on business (to).
4. To stay somewhere for some time.
5. To visit.
6. To attend.
7. To be shown round the laboratories.
8. To get acquainted (with).
9. To learn.
10. High standard of work (research).
11. To work in collaboration (to do joint work).
12. To exchange opinions.
13. To be of the opinion.
14. To be of the same (of a different) opinion as to which (what, who, when, where)...
15. To be impressed (by).
16. To read a paper.
17. To enjoy.

C

(to speak about oneself)

1. To be born.
2. To go to school.
3. To leave school.
4. To get interested in something.
5. While at school...
6. To take entrance examinations.
7. To read much (hard) for the examinations.
8. To be admitted to some Institute.
9. While in the first (second, etc.) year...
10. To join some scientific circle.
11. To do physics (chemistry, etc.).
12. To read a paper.
13. To be a success.
14. To attend lectures (in).
15. To study (to do mathematics, etc.) under Professor N.
16. To graduate (from, at) the Institute (University).
17. To begin working (at).

18. To get an appointment as (a position of) a teacher (engineer, junior research-worker, laboratory assistant, etc.).
19. To join some laboratory.
20. To read for one's thesis.
21. To collect and arrange the data.
22. To check the result.
23. To do (carry on) experiments.
24. To do theoretical work.
25. To consult one's supervisor (on).
26. To do research.
27. To make calculations.
28. As a result of my studies (experiments, work, calculations) I came to the conclusion (I arrived at the conclusion) that...
29. The results of my studies (experiments, work, calculation) enabled me to come to the conclusion that...
30. My experimental data agree fairly well with the theory.
31. I started by collecting data (material, facts).
32. Now I am through with the experimental part of my work.
33. I succeeded in obtaining reliable results (data).
34. My experiments (research) justified the hypothesis...
35. According to my assumption...
36. I find it interesting (important, useful, necessary) to investigate...
37. After a series of experiments on...
38. I work jointly with some of my colleagues.
39. I was led to believe that...
40. My experiments led me to believe that...
41. My experiments led me to the simple conclusion that...
42. I encounter many difficulties in my work.
43. I overcame this difficulty by using another approach.
44. On the basis of my calculation I was able to...
45. I was led to this hypothesis through a series of experiments.
46. Through a series of laboratory studies I managed to show that...
47. My interests centre on the problem of...
48. The subject of my main interest is...
49. I am particularly (especially) interested in...
50. I don't take any interest in...
51. Problems of ... are outside the scope of my work (interest).

PART II

SCIENTIFIC INSTITUTION

Text 1

CARNEGIE INSTITUTION[1] OF WASHINGTON

A little over sixty years ago, on January 28, 1902 Andrew Carnegie founded what was to become a new kind of institution for America: the first to be devoted wholly to fundamental research over wide fronts of science, in the most completely basic aspect.

The Carnegie Institution of Washington was established specifically to encourage, in the broadest and most liberal manner, investigation, research, and discovery and the application of knowledge to the improvements of mankind.

The scientists in the Departments of the Institution have no commitment except to carry on research; they are not required to teach; they choose their own fields of investigation.

Carnegie Institution scientists in the last sixty years have made far-ranging major contributions to knowledge in almost every field of science. They have been pioneers in opening new areas.

At present, Carnegie Institution's interests are mainly in three broad fields: 1) the form, contents and dynamics of the universe; 2) the structure and evolution of the earth; and 3) the frontiers of biology. Work in these pioneering areas is being carried on in six research centres operated by the Institution and by individual scientists and research teams.

The six research centres are:

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[1] **Фонд Карнеги.**

The Mount Wilson and Palomar Observatories which are operated jointly by Carnegie Institution and California Institute of Technology.

These observatories have two of the world's largest telescopes, and are currently engaged in programs on the physical nature and evolution of celestial bodies, and on the structure and dimensions of the Universe.

The Geophysical Laboratory which conducts broad physiochemical studies on the structure, formation and evolution of the Earth's crust to learn more about the physical and biological history, composition and internal make up of our planet.

The Department of Terrestrial Magnetism. Research at this Department covers a wide range of subjects, including the magnetic and electrical fields of the earth, radio astronomy, geophysics of the earth's crust and mantle, isotope geology, nuclear physics and biosynthesis, touching also on basic genetics.

The Department of Embriology. There are investigated the processes by means of which egg cells develop into individual.

The Department of Biology at Standford, California. This Department studies photosynthesis, by which plants manufacture organic matter.

The Genetic Research Unit at Cold Spring Harbor, New York. Studies undertaken by this Unit consider the mechanisms by which life processes are directed in the living cell.

In addition to its own full-time staff, Carnegie Institution annually invites selected scientists of international reputation to spend time at its research centres, making use of the specialized instruments and facilities of the Institution.

The results of the Institution's research are freely and promptly presented to the world through scientific journals and scientific meetings, lectures and symposia. In all, the Institution has published more than 800 titles, some consisting of several volumes.

Exercises

1. Give an adequate translation of the sentences below paying special attention to the parts in italics.

1. On January 28, 1902 Andrew Carnegie founded *what was to become* a new kind of institution for America.

2. Carnegie Institution was the first to be devoted wholly to *fundamental research over wide fronts of science* in the most completely basic aspect.
3. Carnegie Institution was established specifically to *encourage* investigation, research and discovery.
4. The only *commitment* of the scientists of this Institution is *to carry on* research.
5. They choose their own *fields of investigation.*
6. The scientists in the last sixty years have made *far-ranging* major *contributions* to knowledge.
7. Work in *the pioneering areas* is being carried on in six research centres.
8. The research centres *are operated* by the Institution and by individual scientists and *research teams.*
9. The observatory *is currently engaged* in programs on the physical nature and evolution of celestial bodies.
10. The Geophysical Laboratory *conducts broad studies* on the structure, formation and evolution of the earth's crust.
11. Research at this Department *covers* a wide range of subjects.

2. Insert articles where necessary.

A

1. This Institute was established ... little over sixty years ago.
2. It is one of ... first institutions of ... new kind. It was devoted wholly to ... fundamental research.
3. ... researchers of ... Institution have made ... tremendous progress in ... last twenty years.
4. This laboratory carries on ... broad studies on ... structure of ... universe.
5. At ... present everybody must learn more about ... physical history of our planet.
6. ... research of this laboratory covers ... wide range of subjects.
7. One of ... teams works in ... field of ... nuclear physics.
8. Another laboratory investigates ... process of ... manufacturing ... organic matter.

B

9. Our Institute was established ... little over twenty years ago.
10. It was devoted to ... theoretical research.
11. Our laboratory conducts ... broad studies in ... various aspects of ... inorganic chemistry.
12. What subjects does ... research carried on at your laboratory cover?
13. Are you familiar with ... structure of ... chemical compounds?
14. Have you ever read any books on ... genetics?

3. Translate into Russian paying attention to different uses of the preposition *in*.

1. He works in the field of atomic physics.
2. This branch of science was developed in the last twenty years.
3. People of different specialities work in the Departments of this Institute.
4. The interests of our team are in this particular field of science.
5. This laboratory was established to encourage in the broadest manner the research in organic chemistry.
6. Such investigations are carried on in several research centres.
7. Many scientists work in the pioneering areas of natural science.
8. A fundamental research is carried on in the most completely basic aspect.
9. At present we are engaged in programs on the physical nature of the Universe.
10. It is highly important to investigate the processes taking place in living cells.

4. Give an affirmative or negative answer to the following questions adding some details.

Example: Do you work in the field of physics?
Yes, I do. I work in the field of molecular physics.
No, I don't. I work in the field of organic chemistry.

1. Does she investigate the processes taking place in cells?
2. Are you going to work in the laboratory of embriology?

3. Will you be engaged in this program?
4. Is it possible to find unsolved problems in every field of science?
5. Were these investigations carried on in several research centres?
6. Do you think a great progress has been made in science in the last fifty years?

5. Translate into English using the preposition *in*.

1. Наша группа проводит исследования в области ядерной физики.
2. Такие работы обычно ведутся в вычислительных центрах.
3. В любой области медицины есть нерешенные вопросы.
4. За последние годы он опубликовал ряд интересных работ.
5. Эта группа занимается исследованием процессов, происходящих в организме человека.
6. Наша лаборатория создана для проведения исследований в новой области биологии.

6. Insert prepositions where necessary.

A

1. The only commitment ... the scientists ... the Departments ... Carnegie Institution is to carry on research.
2. Fundamental research is carried on ... wide fronts ... science.
3. The knowledge obtained must be applied ... the improvements ... mankind.
4. The interests ... Carnegie Institution are mainly ... three broad fields.
5. All the research centres are operated ... the Institution and ... individual scientists.
6. The Mount Wilson and Palomar Observatories are currently engaged ... programs ... the physical nature ... the Universe.
7. This laboratory conducts broad studies ... the evolution ... the earth's crust.
8. At present elecronics has developed ... a wide branch ... science.
9. Selected scientists work ... the research centres ... Carnegie Institutions.

10. The results ... the research work are promptly presented ... the world ... scientific publications.

B

11. My adviser devotes much time ... studying ... the papers ... other scientists.
12. Can you apply your knowledge ... English ... your work?
13. Our scientists carry ... research ... wide fronts of science.
14. ... present our interests are mainly ... two broad fields.
15. Our research team is engaged ... organizing experiments.
16. Science ... this country has made a tremendous success ... the last fifty years.
17. Usually the field stations are operated ... the research centres.
18. The laboratory I work ... conducts broad studies ... the structure of atomic nuclei.
19. Our laboratory has recently developed ... a separate Institute.
20. ... the moment a new fundamental work ... our team is being presented ... the world.

7. Complete the following sentences and say them fluently.

Example: We are currently engaged...
We are currently engaged in nuclear research.

1. Our Institute was founded...
2. It was established to encourage...
3. The scientists choose...
4. In the last fifty years our science has made...
5. The research is carried on by...
6. This laboratory conducts...
7. Is your research team engaged...?
8. Are you making use of...?
9. Our scientists have made far-ranging contributions to...
10. At present our Institute's interests are mainly in...

8. Give an extensive answer to the following questions. Mind the meaning of the verb.

1. When was your laboratory established?
2. Are you comfortably established in the new building of your Institute?
3. Who established the law of gravity?
4. Do you know how many new states were established in Africa in the last few years?
5. Is it difficult to alter customs established for centuries?
6. Does your Institute encourage investigation, research and discovery?
7. Did your supervisor encourage you to read a paper at the conference?
8. Do you feel encouraged by your progress in experiments?
9. Who encouraged him to take postgraduate studies?
10. Are these laboratories engaged in the same program?
11. Is it possible to engage a seat in the theatre in advance?
12. What work were you engaged in when I called you up?
13. Why is your line (telephone number) always engaged?

9. Insert words and expressions from the text.

1. Our Institute ... fifty years ago.
2. The Institute carries on ...
3. The Carnegie Institution was established in order to ... investigations, research and discovery.
4. The scientists ... their own field of investigations.
5. At present, Carnegie Institution's interests are ... in three broad fields.
6. The work is being carried on in six research centres ... by the Institution.
7. The task of the Geophysical Laboratory is ... more about the physical and biological history of our planet.
8. The observatories are currently ... in programs on the structure and dimensions of the Universe.
9. The research at this Institution ... a wide range of subjects.
10. The ... of this Institute consists of 300 persons.

10. Insert the words given in brackets.

1. This work was a great ... to science. (contribution).
2. Such sessions ... much to our knowledge. (to contribute).
3. Only several days ago we ... this news. (to learn).
4. It is necessary ... this rule. (to learn).
5. The experiment ... on empirical data. (to found).
6. It is one of the oldest Universities in this country; it ... several centuries ago. (to found).
7. Almost every laboratory has several research... (team).
8. Our ... works under Professor N. (team).
9. The best football ... took part in competition. (team).

11. Translate the following sentences using the words in italics.

to contribute (to)

1. Современные ученые внесли большой вклад в науку.
2. Это открытие способствовало нашему пониманию законов природы.
3. На последнем заседании (session) было внесено несколько новых интересных предложений (suggestions).
4. Преподаватели должны всячески содействовать развитию знаний учащихся.

to found

5. Этот институт был основан академиком Павловым.
6. Ленинград был заложен в 1703 году.
7. Это открытие основано на большом количестве данных.

to learn

8. Мой сын научился плавать в бассейне (swimming-pool).
9. Сколько времени вы учите английский язык?
10. Мы узнали эту новость два дня тому назад.

team

11. Футбольная команда «Спартак» выиграла дважды (to win twice).
12. Эта лаборатория состоит из нескольких исследовательских групп.
13. Кто возглавляет вашу группу?

12. **Answer the following questions.**

A

1. When was Carnegie Institution founded?
2. Who was the founder of this Institution?
3. What is the Institution famous for?
4. Why was it a new kind of institution?
5. What kind of research was it devoted to?
6. What was the Carnegie Institution established for?
7. Are the scientists of the Institution required to teach?
8. Do they choose their own field of investigation?
9. What won them international reputation?
10. What are the interests of the Institution at present?
11. Where is the work being carried on?
12. Who operates the research centres of the Institution?
13. What are these research centres?
14. What kind of work do these research centres carry on?
15. How are the results of the Institution's work made known to the world?

B

16. Will you tell us what the Mount Wilson and Palamar Observatories are famous for.
17. What is the work of Geographical Laboratory aimed at?
18. What studies does it conduct?
19. Will you characterize the work of the Carnegie Institution.
20. Tell us a few words of the Department of Terrestrial Magnetism.
21. What is the main problem the Genetic Research Institute is working at now?
22. What do you know of the staff of Carnegie Institution?

C

23. What Institute do you work at?
24. Where is it situated?
25. When was it founded?
26. Who was the founder of your Institute?
27. What kind of research does your Institute carry on?
28. Does your Institute consist of laboratories or departments?
29. What field of investigations have you chosen?
30. Who manages the Institute you work at?
31. Do you carry on individual research (work)?

32. How many research teams have you got at your laboratory?
33. What is the full-time staff of your Institute?
34. What facilities does your Institute have?
35. Does your Institute encourage research?
36. Did your supervisor encourage you to read a paper at the conference?
37. Do you apply your knowledge of the theory to your experimental work?
38. What methods do you apply in your research?
39. Are there any scientists of international reputation working at your Institute?
40. Does your research cover a wide range of subjects?
41. What problems are you going to touch on in your thesis?

13. Agree to the statements below using some of the following introductory phrases: ***so it is; of course, it is; it is, really; you are quite right; I quite agree with you.***

Example: As far as I know, Carnegie Institution is a pioneering Institution.
So it is. Carnegie Institution is a pioneering Institution.

A

1. To my mind, this Institution is very important.
2. As far as I can judge, the Carnegie Institution is established specifically to encourage investigation and discovery.
3. It seems to me that the scientists at the Institution have no commitment except to carry on research.
4. It is said that at present Carnegie Institution's interests are mainly in three broad fields.
5. As far as I know, there are several departments at this Institution.
6. To my mind, the most important research work is carried on by the Geophysical Laboratory.

B

7. I hear you work at the Research Institute.
8. They say you carry on a very interesting research.
9. As far as I know, your speciality is chemistry (physics, biology, etc.).

10. It seems to me that your Institute is one of the oldest in this country.
11. It is widely recognized that the publication of scientific papers is necessary.

14. Construct sentences of your own using the following verb+noun combinations.

1. To apply one's knowledge (method, technique, theory) to. . .
2. To choose one's speciality (topic, field, method, technique).
3. To conduct studies (research, investigation, experiments).

15. Construct sentences of your own using some of the following combinations of attribute and attributive.

1. Fundamental research (study, discovery, investigation, knowledge).
2. Basic (main, chief) problem (aspect, method, contribution).
3. Pioneering area (work, research, science).
4. Scientific journal (meeting, lecture, council).

16. Translate into English.

A

1. Когда был основан Фонд Карнеги?
2. Кто был основателем этого учреждения?
3. Какой работой занимается это учреждение?
4. С какой целью оно было учреждено?
5. Чем занимаются научные работники этого учреждения?
6. Какой вклад сделали они в развитие науки за последние 60 лет?
7. Какие три области знаний интересуют Фонд Карнеги в настоящее время?
8. Кто руководит исследовательскими центрами?
9. Каких проблем касаются сейчас исследовательские центры Фонда Карнеги?

B

10. Институт цитологии Академии наук СССР был создан в 1957 году профессором Насоновым.

11. В настоящее время вся работа этого института проводится десятью лабораториями.
12. Исследования ведут как отдельные ученые, так и научно-исследовательские группы.
13. Наша группа сейчас работает по программе (изучения) физики твердых тел.
14. Каждый ученый стремится узнать как можно больше из области своих исследований.
15. Вам следует рассмотреть эту проблему и изучить ее особенности (peculiarities).
16. Штат нашего института не очень велик.
17. Все лаборатории могут пользоваться оборудованием, которое принадлежит (to belong) институту.
18. Результаты исследований института представляются в научных журналах, на научных конференциях, лекциях и докладах.
19. Недавно была опубликована работа профессора П.

17. Give a talk about your Institute using the following list of expressions as a plan.

1. The Institute of Physics (Chemistry, High Molecular Compounds, Mathematics, Biology, etc.).
2. The Institute is named after. . .
3. The Institute is situated in . . . street (in . . . lane (alley), on (in) . . . avenue, on the . . . square, on . . . embankment).
4. The Institute occupies a large (small, new, old, multistoried) building (house), several buildings.
5. The Institute was established (founded, built, erected) by . . . in (date).
6. The Institute is headed (run) by. . .
7. The staff of the Institute consists of researchers (research workers: senior research workers, junior research workers) and laboratory assistants.
8. The Scientific Council of the Institute consists of the chairman of the Scientific Council, the learned secretary and several members.
9. A scientist (researcher) may be characterized as prominent (well-known, famous, outstanding, hard-working, clever, diligent, industrious, etc.).

Text 2

LABORATORY FOR THE HUMAN ENVIRONMENT

(JOHN B. PIERCE FOUNDATION)

The three-story red-brick building on Congress Avenue in New Haven, Connecticut, is next to the Yale University Medical School.

The legend on the column-supported architrave reads: "John B. Pierce Foundation Laboratory". The bronze statue standing on the triangular patch of lawn to the right of the building is of John B. Pierce himself, the American Standard Radiator Company president who gave his estate to start the foundation which bears his name.

"Bio-engineering" is the key word in the activities and interests of the Pierce Laboratory denoting its basic orientation towards the fields of physiology, biophysics, biochemistry and engineering research.

In 1962 a grant from the National Institute of Health made possible an expansion of the original two-story structure in New Haven, completed in 1933, and a one-story annex, added in 1937, to a three-story building.

The original building contained two test houses designed for the simultaneous study of building construction and physiological comfort.

These facilities still exist with considerable modernization. The present facilities contain laboratories for biophysics, environmental physiology, bioclimatology and psychology as well as computer and data reduction centre.

Under the guidance of Dr. H. T. Hammel, head of the Physiology Laboratory, experiments have been under way to determine the effect of heating and cooling upon the brain. These experiments have been performed at the Laboratory upon monkeys, rats and dogs.

In the Bio-engineering Laboratory, directly headed by Dr. Gadge, work is going forward under the direction of Dr. Arend Bouhuys on the effects of dust on guinea-pig lungs.

Closely allied in its work with the Yale University Medical School (many of the Pierce Laboratory staff hold faculty appointments and participate in the Yale teaching and research programs) much of the Laboratory's effort

has direct educational results, especially in its concepts of bio-engineering.

Many technical papers and reports result from the research accomplished at the Laboratory and a notable number of papers have appeared in publications, having been presented at national meetings of the Society.

Exercises

1. Give an adequate translation of the sentences below paying special attention to the parts in italics.

1. John B. Pierce *started the foundation* which bears his name.
2. "Bio-engineering" is *the key word* in the *activities* and interests of the laboratory.
3. *The basic orientation* of the Laboratory is towards physiology.
4. The *original* building contained two test houses.
5. These *facilities* still exist with considerable modernization.
6. *Under the guidance* of Dr. H. I. Hammel, head of the Physiology Laboratory, experiments *have been under way*.
7. Many of the Pierce Laboratory Staff *hold faculty appointments* and participate in the Yale teaching and research programs.
8. Many technical papers *result from* the research *accomplished* at the Laboratory.
9. A notable number of *papers* have *appeared in publications* having been presented at national meetings of the Society.

2. Insert words and expressions from the text.

1. This Institute is a ... building.
2. The legend above the entrance door ...: "Institute of Technology".
3. Recently the Laboratory was ... and occupies two buildings at the moment.
4. The rebuilding of the Laboratory was ... in 1966.
5. ... study of building construction and physiological comfort is carried on at the Laboratory.
6. The present ... contain several new laboratories.
7. This laboratory is ... by Dr. Gadge.

8. The work of Bioclimatology Laboratory is closely ... with that of the Laboratory of Physiology.
9. Much of the Laboratory's ... has direct educational results.
10. Many technical ... and reports result from the research ... at the Laboratory.

3. Insert articles where necessary.

A

1. ... three-story building is next to ... Yale University Medical School.
2. ... statue of John Pierce is standing to ... right of ... building.
3. John B. Pierce started ... foundation of ... Institution.
4. ... grant from ... National Institution of Health made possible ... expansion of ... original two-story building.
5. ... present facilities contain many different laboratories.
6. These facilities still exist with ... considerable modernization.

B

7. Our Institute occupies ... five-story building.
8. On ... left of ... building of ... Admiralty there is ... bronze statue of Peter I.
9. What can you say about ... activities of your laboratory?
10. ... expansion of this Institute is ... problem of ... nearest future.
11. Who is ... head of your Institute?
12. Dr. N. works on ... effects of X-ray on ... human beings.

4. Complete the sentences using the nouns in brackets with prepositions *on, in, to, under* and repeat them fluently.

1. Our Institute is situated... (Gorky Avenue).
2. There are many research centres... (Leningrad).
3. There is a notice board... (the wall).
4. This building was built... (the embankment).
5. This important work is carried on... (our laboratory).
6. Our laboratories are allied... (their work).
7. We work ... of Academician P. (the guidance).

8. The whole staff of the laboratory is participating ... (this program).
9. Their paper is ... of radiation. (the effect).

5. Answer the following questions adding some introductory phrases.

Example: Shall I turn to the right to get to the museum?
Oh no, you are mistaken (you are wrong), you must turn to the left.

1. Is the monument situated to the left of this building?
2. Shall we go to the right to get to the theatre?
3. Does one fly to the west from Moscow to get to Vladivostok?
4. If we go by train to the North of Leningrad can we reach the Black Sea?
5. Is the Winter Palace on the right bank of the Neva?
6. Is comrade B. sitting on your left?
7. Is there a table in the corner of the room?

6. Translate the following sentences paying special attention to the prepositions.

1. Это здание расположено в красивом парке.
2. Многие ленинградцы живут на Московском проспекте.
3. Эти два института тесно связаны по своей работе.
4. В сегодняшнем номере газеты опубликована интересная статья о проблемах обучения.
5. Все сотрудники отдела участвуют в выполнении программы этого года.
6. Идите направо и вы увидите мост через реку.
7. Посередине площади стоит высокая колонна.
8. Очень интересно работать под руководством этого ученого.
9. На этой улице всегда очень людно.
10. Обратите внимание на объявление на стене у входа.
11. Чтобы попасть к вокзалу, нужно повернуть налево.
12. Выборг находится к северу от Ленинграда.

7. Insert prepositions where necessary.

A

1. Laboratory for the Human Environment is a three-story building ... Congress Avenue.

2. The statue ... the founder ... the Laboratory is ... the right ... the building.
3. Bio-engineering is the main branch ... the activities ... the Laboratory.
4. The basic orientation ... this laboratory is ... the fields of physiology, biochemistry and allied sciences.
5. Two test houses are designed ... the simultaneous study ... building construction and physiological comfort.
6. Experiments are ... way ... the guidance of Dr. Hammel.
7. The aim ... the experiments is to determine the effect ... heating and cooling ... the brain.
8. They study the effects ... X-rays ... monkeys.
9. The Laboratory staff participate ... the Yale research program.
10. The laboratory is closely allied ... its work ... the Yale University Medical School.
11. The technical papers which resulted ... the research appear ... publications.

B

12. Our laboratory is ... the third floor ... the right ... the library.
13. He works ... Professor P. who is the head ... this laboratory.
14. ... the moment some very interesting experiments are ... way ... our laboratory.
15. ... present an experiment ... the effect of X-ray ... monkeys is ... way.
16. A great amount ... work is carried on ... the field ... biochemistry.
17. This chamber is designed ... nuclei analysis.
18. Our Institute is situated ... Nevsky Avenue.
19. The work ... our laboratory is allied ... that of the chemical laboratory.

8. Substitute the words in italics by one of the following words: ***to perform, guidance, in addition to, activity, to start, to appoint, modern, to be educated, to contain.***

1. The foundation of the town *was begun* as early as the XV century.
2. They work under the *direction* of a prominent physicist.

3. The experiments were *carried on* successfully.
4. The date of the congress *was settled* several months ago.
5. He *was well taught.*
6. We studied physics *as well as* chemistry.
7. Our laboratory has got some new equipment *as well as* a sound-proof chamber.
8. The equipment appeared to be quite *up-to-date.*
9. He was a great peace-fighter and his *deeds* are well known.
10. *There are* many useful data in this paper.

9. Complete the following sentences and say them fluently.

Example: Our Institute occupies...
Our Institute occupies a three-story building.

1. Peter I started...
2. The basic orientation of this Institute is...
3. This chamber is designed...
4. Our team works under...
5. The experiments are under...
6. Physiologists perform their experiments on...
7. The present facilities contain...
8. It is instructive to work under the direction...
9. There are several laboratories allied...
10. The staff of this laboratory participate...

10. Translate the following combinations of words.

1. Нуждаться в расширении.
2. Основное направление (ориентация).
3. Выполненное исследование.
4. Представленная работа.
5. Существуют следующие возможности (средства).
6. Идут опыты.
7. Под руководством.
8. Сотрудники института.
9. Давать возможность проводить исследования.
10. Участвовать в опытах.

11. Construct sentences using the following verb + noun or verb + gerund combinations.

1. To start work (the foundation (of), experiments, one's journey, the business).

To start working (experimenting, investigating).
To start by informing (by answering, by discussing).
2. To complete work (studies, experiments, research, investigations).
To complete the construction (of).
3. To contain information (data, facilities, laboratories, chambers, etc.).
4. To perform work (an experiment, a task).
5. To accomplish work (research, a task, an experiment).
6. To present a paper (a report, an explanation).

12. Construct sentences of your own using the words and expressions in italics.

Example: These papers *have been presented* at the conference.
His thesis has been presented at the session.

1. Many technical papers and reports *result from the research accomplished* at the Laboratory.
2. This Institute needs an *expansion.*
3. The Bio-engineering Laboratory *is headed by* Dr. B.
4. A lot of different experiments *are performed* at the Laboratory.
5. *Under the guidance* of Dr. H. *the experiments are under way.*
6. In the laboratory *work is going forward on* the effects of dust on guinea-pig-lung.
7. In 1962 a grant *made possible* an expansion of the Institute.

13. Insert words given in brackets.

1. His work must be ... as soon as possible. (to complete).
2. The data obtained are not ... because the experiment is not... (complete, to complete).
3. Our laboratory has large ... for research. (facilities).
4. Modern ... permit to extend the scope of investigation. (facilities).
5. We ... in our work. (to be allied).
6. They carry on their research in the ... fields of science. (allied).

7. There ... to be a great difference between these two problems. (to appear).
8. Somebody ... in the doorway. (to appear).

14. Translate the following sentences using the words in italics.

to complete, complete

1. Этот опыт еще не закончен.
2. Нужно дополнить эти данные.
3. Мы должны завершить работу к концу месяца.
4. Можно ли купить полное собрание сочинений (edition) Шекспира?

facilities

5. Какими возможностями располагает этот институт для проведения таких опытов?
6. В крупных городах обычно много средств передвижения.
7. Университет обладает большими возможностями для проведения занятий.
8. Современные средства исследовательской работы весьма разнообразны.

to ally, allied

9. Общая тема связывает эти две лаборатории.
10. Биология и биохимия — смежные науки.
11. Работа каждого исследователя тесно связана с экспериментом.

to appear

12. Когда эта работа появилась в печати?
13. Мне кажется, что вы ошибаетесь.
14. Результаты эксперимента, по-видимому, надежны (to be reliable).
15. Он всегда опаздывает и появляется в институте после девяти.

15. Answer the following questions.

A

1. How does the Laboratory for the Human Environment look?

2. What is the address of the Laboratory?
3. What does the legend on the architrave read?
4. Where does the statue of John B. Pierce stand?
5. Who was John B. Pierce?
6. Whose name does the Laboratory bear?
7. When was the Laboratory expanded?
8. What was added to a three-story building in 1938?
9. What were the test houses designed for?
10. Was the modernization of the old facilities considerable?
11. Who is the head of the Physiology Laboratory?
12. Under whose guidance have the experiments been under way at this laboratory?
13. What was the purpose of these experiments?
14. What were the results of the research accomplished at the Laboratory?
15. What was presented at national meetings of the Society?

B

16. Where is your Institute?
17. What kind of building does your Institute occupy?
18. What does the legend on the building of your Institute read?
19. Whose name does your Institute bear?
20. What is the main orientation of the Laboratory you work at?
21. Was your Institute reconstructed or rebuilt recently?
22. How many laboratories does your Institute contain?
23. Who is the head of your Laboratory?
24. What kind of experiments do they perform at your Laboratory?
25. What laboratory is closely allied with yours in its work?
26. Does the staff of your Laboratory participate in the research program of the Institute?
27. How many scientific papers resulted from the research accomplished at your Laboratory?

16. React to the wrong statements below using some of the following introductory phrases: *that's wrong; you are not (quite) right; I can't agree with you (to that); you are mistaken.*

Example: This book is not worth reading.
I am afraid you are wrong. It is a very interesting book.

1. The Laboratory for the Human Environment does not bear the name of John B. Pierce.
2. To my mind, the basic orientation of this Laboratory is towards the field of mathematics.
3. No new buildings were added to the Laboratory in 1938.
4. The present facilities of the Laboratory do not contain computer and data reduction centre.
5. As far as I know, Dr. Gadge is the head of the Physiology Laboratory.
6. I hear that the staff of the Laboratory has nothing to do with the Yale University Medical School.
7. As far as I can judge, your Institute was founded quite recently.
8. I think English spelling is very simple.
9. It seems to me you are not interested in your work.
10. As far as I know, you have neither meetings nor seminars at your Institute.
11. I hear you work under Professor N.
12. They say your friend is participating in this work.

17. Translate into English.

A

1. Лаборатория по изучению окружающей человека среды (условий) была основана Джоном Пирсом.
2. Эта лаборатория находится в Нью-Хавен, штат Коннектикут, и занимает трехэтажное кирпичное здание на Конгресс-авеню.
3. Лаборатория занимается исследованиями в области психологии, биофизики, биохимии и техники.
4. В 1938 году помещение лаборатории было значительно расширено.
5. Современное помещение содержит несколько различных лабораторий.
6. В физиологической лаборатории работа ведется под руководством доктора Хаммеля.

7. В этой лаборатории проводятся эксперименты на обезьянах, собаках и крысах.
8. Во главе биотехнической лаборатории стоит доктор Гейдж.
9. Штат лаборатории Пирса тесно связан по своей работе с Медицинским колледжем Университета.
10. Сотрудники лаборатории выполняют работы на факультете и ведут там преподавательскую и исследовательскую работу.
11. В результате работы, которую выполняет лаборатория, появляются многочисленные статьи и доклады.
12. Научные доклады (сообщения) обычно делаются на заседаниях Общества.

В

13. Где расположен институт, в котором вы работаете?
14. Наш институт занимает многоэтажное здание в центре города.
15. Основателем нашей лаборатории был академик П.
16. Лаборатория названа его именем.
17. Основное направление в работе нашей лаборатории — изучение строения клетки.
18. Несколько лет тому назад наш институт был расширен и к нему было пристроено двухэтажное здание.
19. Лаборатория проводит одновременное изучение нескольких физических явлений.
20. Недавно в этой лаборатории проводились опыты по изучению влияния охлаждения на работу мышц.
21. Кто руководит лабораторией № 4?
22. Штат нашей лаборатории не очень большой.
23. Ежегодно сотрудники нашего института публикуют большое количество работ в химических журналах.
24. Недавно было сделано два интересных сообщения на конференции.

18. Give a talk on your laboratory. Use words and expressions given below.

1. The Institute is divided into (consists of) laboratories, departments, research groups (teams).
2. The laboratory is situated in a ... building, on the ... floor.
3. At the same laboratory with you are working your co-workers (collaborators, associates).

4. They work under the head (the chief) of the laboratory.
5. The head of the laboratory is Academician (Corresponding Member, Doctor of Science (D. Sc.), Master of Science (M. Sc.), Professor)...
6. The laboratory is equipped with installations, equipment, instruments, apparatus, chambers, etc.
7. The equipment is modern, up-to-date, out-of-date, good, bad, etc.
8. The equipment is operated (dealt with, handled).

Text 3

IMPERIAL COLLEGE, LONDON

(TALKED BY SEAN DUNNE, A PHYSICIST FROM THIS COLLEGE)

The Imperial College of Science and Technology is one of the oldest and most important scientific institutes in England. It now forms part of the University of London, and fulfils the dual purposes of teaching students and fostering research in science and technology.

Imperial College began as the Royal College of Science in the middle of the nineteenth century, when it was realized that teaching and pursuing science and its applications was necessary to fully carry out the industrial revolution and keep Britain in the forepost of technological advance. Many famous scientists were associated with the early days of the College, for example Huxley and Wells. Prince Albert, the royal patron, also closely followed scientific work at the College. With the addition of the City and Guilds Institute and the Royal School of Mines, Imperial College acquired large engineering facilities in addition to those for pure scientific research.

Today the main departments are: Physics, of which Professor Blockett is well known; Civil Engineering; Mechanical Engineering; Electrical Engineering; Aeronautics; Mining Technology; Chemistry; and Mathematics. A large new department is the Biochemical Department, headed by Professor Chain.

Imperial College is fortunate in having several new buildings with many excellent laboratories, and more are

being built. A Computer Section develops the facilities of the College's two computers for the use of all departments. The College also has facilities outside London in a biological field station and a mining research station.

At the present time about 2000 students are studying at Imperial College for their first degree. There are also about 1000 research students, working for higher degrees and participating in the research work of the College. A large proportion of them are overseas students from many different countries. There is much excellent research work undertaken at Imperial College, in a wide range of subjects. New research groups include one working on traffic problems, an operational research group, and a history of science department.

Imperial College is still growing in size and numbers, and as an almost independent institution it rivals many other colleges of London University put together. It is possible that it will be associated with other institutes nearby, the Royal Schools of Art and Music, to develop into a separate University. In this way it is hoped to continue to train specialized scientists and engineers in a more varied cultural atmosphere than a university is supposed to embody.

Exercises

1. Give an adequate translation of the sentences below paying special attention to the parts in italics.

1. The Imperial College of Science and Technology *forms* part of the University of London.
2. It *fulfils the dual purposes* of teaching students and fostering research in science and technology.
3. It was necessary *to fully carry out* the industrial revolution and *keep* Britain *in the forepost* of technological advance.
4. Imperial College *acquired* large engineering *facilities* in addition to those for pure scientific research.
5. A Computer Section *develops the facilities* of the College's two computers for the use of all departments.
6. There are about 1000 research students, *working for higher degrees* and participating in the research work of the college.
7. Much excellent research work *is undertaken* at Imperial College in *a wide range of* subjects.

8. Imperial College *is* still *growing in size* and *numbers.*
9. Imperial College *rivals* many other colleges of London University put together.
10. In this way it is hoped to continue *to train specialized scientists* and engineers.

2. Answer the questions using the words in brackets.

Example: What kind of research was he awarded for? (biology, cancer).
He was awarded for his research *in* biology.
He was awarded for his research *into* cancer.

1. What kind of research was he engaged in? (physics).
2. What research does your team carry on? (the evolution of cell).
3. What kind of research did you carry out last year? (chemical properties of uranium).
4. What research do they carry on in a field station? (biology).
5. What kind of research have you carried out using this technique? (muscle tissue).
6. What research do they carry on under Professor Chain? (biochemistry).

3. Give both short and full answers to the following questions. Mind the prepositions.

Example: Are you going to read for your examinations?
Yes, I am. I am going to read for my examinations.

1. Do you work for your thesis?
2. Is it important to read for the paper you are going to read at the seminar?
3. Were you asked to participate in the foregoing discussion?
4. Is it true that you are working on traffic problem?
5. Do you have to read much for your lectures?
6. Was your work associated with experimenting?
7. Will you be engaged in the solution of this particular problem?
8. Do your coworkers work for higher degrees?

4. **Translate the following sentences. Mind prepositions *in, into, for, on, with*.**

1. В настоящее время проводятся исследования атомных столкновений (atomic collisions).
2. Ему приходится много готовиться к экзамену по философии.
3. Наша группа работала в прошлом году по вопросам состава крови.
4. Его научная работа тесно связана с преподавательской деятельностью.
5. Наша маленькая лаборатория теперь превратилась в большой и важный институт.
6. Нужно очень много работать, чтобы получить степень доктора наук.
7. Большая часть сотрудников занята экспериментальной работой.
8. Меня пригласили участвовать в конференции.
9. Многие страны сейчас занимаются исследованиями космоса.
10. Этот институт занимается исследованиями не только в области науки, но и техники.

5. **Insert prepositions.**

A

1. Imperial College is fostering research ... science and technology.
2. It was founded as the Royal College ... the middle ... the nineteenth century.
3. The aim ... its foundation was to keep Britain ... the forepost ... technological advance.
4. Many famous scientists were associated ... the College.
5. There are large engineering facilities ... addition ... these ... pure scientific research.
6. One ... the departments is headed ... Professor Chain.
7. The College is fortunate ... having several new buildings ... many laboratories.
8. The College has facilities ... London ... a biological field station.
9. ... the present time many research students are working ... higher degree ... Imperial College.
10. Much research work is undertaken ... Imperial College ... a wide range ... subjects.

11. The College is growing ... size and numbers.
12. Very soon it will develop ... a separate University.

B

13. What well-known scientists are associated ... your Institute?
14. This Institute is fostering research ... cytology.
15. The Institute of Semiconductors was founded ... the middle ... the twentieth century ... Academician Joffe.
16. Our Institute is ... the forepost ... physical science.
17. The Laboratory ... Biochemistry is headed ... Professor N.
18. The post graduates ... our Institute are now studying ... higher degree.
19. I do much reading ... my examination in English.
20. We hope to train specialized scientists ... many ways.

6. Construct sentences with the preposition *in addition to*.

Example: He studies English. (French).
He studies English in addition to French.
In addition to French he studies English.

1. Most of the professors of the University carry on research work. (teaching).
2. This laboratory acquired engineering facilities. (pure scientific research).
3. This author has published a book on this subject. (several articles).
4. I read for my examinations. (the work I do during the day).
5. My colleagues do research into many problems of vital importance. (other work).
6. Recently a new building was built for our Institute. (two old ones).
7. The Institute has good facilities. (a field station).

7. Insert the following verbs: *to apply (to), to fulfil, to follow, to undertake.*

1. The work was ... in the middle of May.
2. The method is to be ... in this way.

3. The problem ... a wide range of subjects.
4. This most important experiment will be ... by a report.
5. An interesting research has been ... in this field of science.
6. One must know how ... this theory.
7. He is not much of a talker and it is difficult ... him.

8. Translate the following sentences using the verbs in italics.

to apply (to)

1. Необходимо уметь применять теорию на практике.
2. Это правило не всегда используется.
3. Они обратились к секретарю.
4. То, что я говорю, к вам не относится.

to fulfil

5. Эта лаборатория ведет важную работу.
6. Сейчас здесь проводятся испытания.
7. Каждый должен выполнить свой долг (duty).
8. Работа была закончена к концу месяца.

to follow

9. Идите вперед, а я последую за вами.
10. Они преследовали врага несколько дней.
11. Он говорит так быстро, что очень трудно следить за его речью.
12. Вы должны последовать его совету.

to undertake

13. В этой области были начаты обширные исследования.
14. Было сделано несколько попыток добраться до Северного полюса.
15. Я не могу поручиться, что вы добьетесь успеха, предприняв этот опыт.

9. Insert words and expressions from the text.

1. Imperial College ... the dual purpose of teaching students and ... research in science.
2. At that time it was realized that teaching and ... science was necessary to ... the industrial revolution.

3. Many famous scientists were ... with the early days of the college.
4. Imperial College ... large engineering facilities.
5. The Biochemical Department is ... by Professor Chain.
6. A Computer Section ... the facilities of the College's two computors for the ... of all departments.
7. About 2000 students are studying for their...
8. The College has facilities ... London.
9. More than 1000 research students ... in research program of the College.
10. There are many ... students from different countries.
11. Much excellent research work is ... at Imperial College.
12. The research work is undertaken in a ... of subjects.
13. It is possible that Imperial College will be ... with other institutes nearby.
14. It is hoped to continue to train ... scientists and engineers at Imperial College.

10. Paraphrase the sentences below substituting words and expressions from the text for those in italics.

1. Imperial College *is a part* of the University of London.
2. It *serves two purposes*: that of teaching and that of carrying on research.
3. The Imperial College was *started* as the Royal College of Science.
4. In the nineteenth century it was *understood* that science was necessary *to complete* the industrial revolution.
5. Many *prominent* scientists were associated with the College.
6. Imperial College *obtained* large *possibilities* to carry on research.
7. The work at the Biochemical department *is performed under* Professor Chain.
8. There are about 1000 research students who *take part* in the research work of the College.
9. Much excellent research work *is underway* at Imperial College.
10. The College *is far ahead of* many other Colleges put together.

11. Here is a plan *to combine* this college with other *neighbouring institutes.*

11. Complete the following sentences and say them fluently.

E x a m p l e: A university is supposed to embody...
A university is supposed to embody a more varied cultural atmosphere.

1. This College is the oldest and...
2. The purpose of the College is...
3. Pursuing science and its application...
4. Many famous scientists are...
5. Our Institute acquires...
6. Students acquired...
7. Professor N. is...
8. This laboratory has two computors for...
9. Many students are studying for...
10. The research work is undertaken in a...
11. The research students are working for...
12. The laboratory is still growing...

12. Answer the following questions.

A

1. What kind of institution is the Imperial College of Science and Technology?
2. What are the purposes of the College?
3. In what field does it foster research?
4. When did the College begin as the Royal College of Science?
5. Why was teaching and pursuing science so necessary at that time?
6. What helped to keep Britain in the forepost of technological advance?
7. Who was associated with the early days of the College?
8. What facilities did the College acquire?
9. What are the main departments of Imperial College?
10. Are there any new buildings being built for the College?
11. Is the College related to the University of London?

12. What was realized in the middle of the nineteenth century?
13. What historical events of great importance took place in the middle of the nineteenth century?
14. What department is run by Professor Chain?

B

15. What can you tell us about your Institute?
16. What is your opinion of the research carried on at your Institute?
17. What do you think is the main purpose of this research?
18. What facilities did your Institute acquire?
19. Has it any facilities outside the town?
20. How many research students are there at your laboratory?
21. Is your Institute growing in size and numbers?
22. Are there any new groups at your Institute and what are they working at?
23. Do you carry on any scientific research?
24. Were there many well-known scientists associated with your Institute?

13. Give a full affirmative answer to the following questions making use of an adverb or an adjective.

Examples: 1) Are you doing theoretical or experimental work? (most, mostly).
I am doing experimental work mostly.
2) Is Imperial College an important scientific institution? (most, mostly).
Yes, it is the most important scientific institution.

1. Do you live near your Institute? (close to, closely).
2. How does your adviser follow your work? (close to, closely).
3. What are the facilities of your laboratory? (large, largely).
4. Are computors used now to help science? (large, largely).
5. How is your laboratory equipped? (good, well).

6. What kind of equipment have you in your laboratory? (good, well).
7. What laboratory was the last to be founded at your Institute? (new, newly).
8. Where has this Institute been moved? (new, newly).
9. Have you obtained all the necessary data? (near, nearly).
10. Where is the bus stop? (near, nearly).

14. Agree or disagree with the following statements. Use such introductory phrases as: ***you are quite right; it is really; so it is; of course, it is; I quite agree with you*** **or** ***that is wrong; you are (absolutely) wrong; I am afraid you are wrong; on the contrary...; I can't agree with you; you are mistaken.***

Examples: 1) Imperial College is the oldest institution in England.
You are quite right. It is the oldest institution of England.
2) This College does not carry on research in science.
But it does. It carries on research in science.

1. There are no laboratories at your Institute.
2. To my mind, the facilities of your Institute are quite up-to-date.
3. I hear the staff of your Institute is very small.
4. As far as I know, you carry on research into many problems of vital importance.
5. Your group does not undertake much research work in a wide range of subjects.
6. As far as one can judge, a great number of research students are working for their degree.
7. There are no research groups working on traffic problems at your Institute.
8. This laboratory is not growing in size and numbers at the moment.
9. Research students are not supposed to take their examinations in languages.
10. In the Soviet Union there are many institutes having several new buildings with many excellent laboratories.

15. Translate into English.

A

1. Империал-колледж — один из старейших и наиболее важных научных заведений Англии.
2. Колледж представляет собой часть Лондонского университета.
3. Колледж служит двум целям: обучению студентов и проведению большой технической работы.
4. Империал-колледж возник в середине XIX столетия.
5. Очень скоро этот колледж оказался самым передовым учебным заведением.
6. С первыми годами деятельности колледжа связаны имена многих известных ученых.
7. В настоящее время создано несколько больших новых отделений.
8. Во главе одного из таких отделений стоит профессор П.
9. Кроме того, колледж имеет несколько филиалов за пределами Лондона.
10. В колледже сейчас ведутся многочисленные исследовательские работы в широком масштабе.
11. Размеры колледжа и штат преподавателей и сотрудников продолжают расти с каждым годом.

B

12. Этот институт был основан в начале XX века.
13. Сейчас он является ведущим институтом в нашей стране.
14. Исследовательские работы здесь проводятся в широком масштабе и затрагивают многие области физики.
15. Институт имеет большие возможности для развития научной работы.
16. В институте много аспирантов, которые работают под руководством крупных специалистов.
17. Основными отделами института в настоящее время являются отделы физики и электротехники.
18. В настоящее время разрабатывается ряд новых исследовательских тем.
19. Предполагается выделить из института физическую лабораторию и развить ее в самостоятельный институт.

16. **Give a talk about your work. Use words and expressions given below.**

1. I work (began to work) at the Institute (at (in) the Laboratory (of), at the Designing Bureau, at the office, at the Research Institute, in the field (of), at a problem, subject, topic, theme)...
2. My work is theoretical (practical, experimental).
3. I carry on research (in, into), investigations (of), experiments (on)...
4. I use (employ, elaborate, work out) different methods, technique.
5. I am concerned with (I deal with) a theme, a topic, a subject, investigations, a method, technique.
6. The problem I solve is important (of importance, interesting, essential, main, chief, the key problem, etc.).
7. I work in a team (do individual research work).
8. I experiment on...
   I make experiments.
   I carry on experiments.
9. I obtain (collect) the data, the results.
10. I treat (check, analyse) the data, the results.
11. I take the readings.
    I make conclusions (arrive at some conclusions).

SUPPLEMENT

List of Questions

A

1. Who are you?
2. Where did you study?
3. What did you graduate?
4. When did you graduate the Institute?
5. How long have you been studying at the Institute (University)?
6. Where do you work?
7. How long have you been working there?
8. What is your speciality?
9. What laboratory do you work at?
10. In what field do you carry on your investigations?

B

1. Where is your Institute situated?
2. Is it far from your house?
3. How long (much) does it take you to come to your Institute?
4. How do you get to your Institute?
5. Do you go by bus or by tram?
6. Have you any changes?
7. Does your Institute occupy one building or several?
8. Is the building of your Institute large?
9. How many stories has it?
10. Is it a new or an old building?
11. When was the Institute established?
12. Who was the founder of the Institute?
13. After whom is the Institute named?
14. Who is the head (director) of the Institute (deputy director)?
15. What is the staff of the Institute?
16. Is there a Scientific Council at your Institute?
17. Who is the learned secretary?
18. Does your Institute hold any conferences, symposia or seminars?
19. Are there any distinguished scientists at your Institute?
20. What kind of research does the Institute do?
21. What kind of problems does the Institute deal with?
22. What is the key problem the Institute is solving now?
23. Is the scope of the research wide?
24. Does the Institute make a thorough study of the problems it is concerned with?
25. How many laboratories (departments) has it?

C

1. Where is your laboratory situated?
2. Is your laboratory large or small?
3. How many coworkers (collaborators) have you in your laboratory?
4. Who is the chief of your laboratory?
5. How many research workers are there in the laboratory?
6. Are there many laboratory assistants at your laboratory?

7. Have you teams at your laboratory?
8. Have you any senior and junior research workers at the laboratory?
9. How is your laboratory equipped?
10. Have you any big installations in your laboratory and what are they?
11. Are there any special chambers?
12. Where do you keep the equipment (apparatus, instruments) at your laboratory?
13. Is it a modern (up-to-date) equipment?
14. Do the collaborators know how to handle (to operate) the installations and apparatus?
15. What kind of research does your laboratory carry on?
16. What does it experiment on?
17. How long does one experiment last?
18. How do the associates of your laboratory treat the results of the experiments?
19. Is it possible to check the data of the experiments and by what means?

D

1. In what field do you do your research?
2. Are you a theoretician or an experimentator?
3. What do you investigate?
4. Do you explore the new area of physics (chemistry, astronomy, etc.)?
5. Do you work in a team or have you an individual topic?
6. Under whom do you work?
7. What substances do you work with?
8. What methods do you use (employ) in your work?
9. Do you develop (work out) various methods?
10. What do you usually do when the experiment is over?
11. How do you collect the data?
12. What do you do with the data obtained?
13. Is it difficult to analyse the results?
14. Do the data obtained enable you to come to important conclusions?
15. Can you claim (maintain) that the problem you studied is solved?
16. Are you a postgraduate (a research student)?
17. When did you take your postgraduate course?

18. In what year are you?
19. Have you passed all your examinations already?
20. When are you going to take your examination in English?
21. Who is your adviser?
22. Do you work at your thesis?
23. When are you supposed to read your thesis?
24. What part of your dissertation have you already completed?
25. Is the experimental part of your work completed?
26. Have you already any published papers?
27. Have you read your paper?
28. When are you going to publish your abstracts?
29. What scientific degree will you get?

Additional Texts

(to retell using words and expressions trained in this section)

The Indian Institute of Science

The Indian Institute of Science was started with the Departments of Electrical Technology and Pure and Applied Chemistry. The Department of Biochemistry was formed in 1921. In 1935, when Sir C. V. Raman became the Director of the Institute, the Department of Physics was started. During the Second World War, the Department of Aeronautical Engineering was established. After the War, a scheme of expansion was planned. This included improvement in and expansion of the existing departments.

The Institute has heen a pioneer in advanced instruction and research in Science and Engineering in India, and had contributed substantially to the scientific and industrial development of the country. A number of industries has been established as a result of the research carried out in the laboratories of the Institute. The facilities available in these laboratories are made use of both by private and Government-owned industries.

National Research Council

The largest and most diversified program of civil research in Canada is carried out by the National Research Council (NRC). Its laboratories are engaged in many investigations of interest to Canadian Industry. Some are undertaken on the initiative of the council itself in order to develop promising ideas of its own scientists; some are taken up on recommendations of the Council's associate committees, which include representatives from industry who

are interested in particular problems; and others are undertaken in co-operation with individual companies. Routine test work is avoided except when the Council is asked to certify performance of equipment as an independent body.

Each problem presented to the Council is considered on its merits and dealt with in what seems the most practical way: those of national interest may be undertaken at the expense of the Council; the expense of company problems of less than national scope may be shared by the company and NRC; when facilities are not available elsewhere, specific industrial research may be undertaken by NRC, the results of which become the property of the company.

The Massachusetts Institute of Technology

The Massachusetts Institute of Technology has been an educational pioneer since its founding. It virtually created the modern profession of chemical engineering and was the first technological institution to recognize and provide for economics as an important element in the education of the engineer. The Institute was the first to establish courses in aeronautical engineering, architectural engineering, chemical engineering, food technology, industrial biology, marine engineering, and naval architecture.

The Institute is at present taking the leadership in upgrading and modernizing the education of engineers. Its Electrical Engineering Department has led the way by a drastic overhaul of its curriculum which embodies a more fundamental approach to electrical engineering. This spirit is now finding rapid acceptance through the School of Engineering.

At present the Massachusetts Institute of Technology has the most comprehensive and varied research programme in the physical sciences and technology to be found in any one place in the world. It has at present under way 900 separate research projects. There is scarcely any aspect of American science and technology that is not touched — and advanced — by its creative activity.

Пулковская обсерватория

Располоежнная на Пулковских высотах по линии Пулковского меридиана, Главная обсерватория Академии наук СССР пользуется всемирной известностью. Ее называют «астрономической столицей мира». Обсерватория была построена в 1830-х годах по проекту архитектора А. П. Брюллова. Со времени своего открытия в 1839 году обсерватория играла руководящую роль в русских геодезических работах, труды ее сотрудников по звездной астрономии получили международное признание. В годы войны фашисты варварски разрушили Пулково. Теперь обсерватория восстановлена, капитально реконструирована и снабжена новейшими приборами и оборудованием. В последнее время научные сотрудники многое сделали для изучения космоса с помощью наблюдений за советскими искусственными спутниками Земли.

Университеты Англии

Британские старейшие и знаменитые университеты Оксфорд и Кембридж были основаны в XII веке. Эти великие центры образования и науки во многих отношениях придерживаются традиций прошлого, но они снабжены прекрасно оборудованными лабораториями и огромными библиотеками, насчитывающими тысячи томов. Основные предметы (дисциплины), которые преподаются в Оксфорде и Кембридже, включают: древние языки, философию, историю, право, медицину, естественные науки и математику. Оксфорд уже с XIII века стал одним из важнейших университетов Европы. Что касается Кембриджа, то в конце XVII века, когда Ньютон был назначен в нем профессором математики, он стал знаменит своей обширной программой по этому предмету. А в 1871 году Максвеллом там была основана экспериментальная физическая лаборатория.

В настоящее время оба университета продолжают оставаться важнейшими центрами культуры и науки Англии.

7*

PART III

SCIENTIFIC GATHERING

Text 1

TWELFTH INTERNATIONAL ASTRONAUTICAL CONGRESS

The International Astronautical Congress is an annual meeting of the interplanatory societies of the world. The recent meeting, during October 1—7, 1961, in Washington, was the first occasion that the meeting had been held on the American continent. Of the 750 people registered, some 300 came from countries outside the United States. The president of the Astronautical Congress this year was Academician L. I. Sedov, of the USSR.

The opening ceremony was followed by a reception at the Boiling Air Base.

The technical sessions started at 9 a. m. on October 3. Undoubtedly, the most noteworthy paper of the morning was by A. C. Clarke, under the title "The Social Impact of Communication Satellites". This was presented during the Space Law Colloquium and attracted widespread attention.

The Space Law Colloquim continued in the afternoon and there was a session on energy conversion and yet another simultaneous session on astrodynamics. This last subject was treated as a round-table topic where a number of contributors made both prepared and unprepared comments.

On October 4 the round-table concept was continued with a discussion on the exploration of the solar system by radar and radio astronomy.

On October 5 the now traditional conference boat-trip was made down the River Potomac. This informal occasion probably gives more opportunity for relaxed discussions between groups of experts than is possible in the more formal atmosphere of the conference hall. The congress banquet was held in the evening and was addressed by Academician Sedov.

Exercises

1. Give an adequate translation of the sentences below paying special attention to the parts in italics.

1. The International Astronautical congress is an *annual* meeting.
2. The *recent* meeting *was held* in Washington.
3. *Some* 300 delegates came from countries *outside* the United States.
4. The *president* of the 12th Astronautical Congress was Academician Sedov.
5. *The opening ceremony was followed by* a reception.
6. The most noteworthy *paper* was presented by C.
7. This paper *attracted widespread attention* at the Boiling Air Base.
8. There was *a session* on energy conversion and *yet another simultaneous* session on astrodynamics.
9. This last subject *was treated as a round-table topic* where a number of *contributors* made both *prepared* and *unprepared comments.*
10. *The round-table concept* was continued with a discussion on the exploration of the solar system by radar.
11. An *informal occasion* probably *gives* more *opportunity* for *relaxed* discussions between groups of experts than is possible in the more *formal* atmosphere of the conference hall.

2. Substitute the words given in brackets changing the prepositions where necessary. Mind: *at* 9 o'clock (*at* this moment, *at* this time), *on* Monday (*on* the 3d of May, *on* that day), *in* May (*in* spring, *in* 1960), *in* the morning (*in* the afternoon, *in* the evening), *during* May 10—14 (*during* the colloquium, *during* the holidays); but no preposition before: this morning (this week, this month), last night (last week, last Friday), next week (next month, next year).

Example: The session started *at* 5 o'clock. (this morning).
The session started this morning. (the 3d of October).
The session started *on* the 3d of October. (was held).
The session was held *on* the 3d of October.

(the afternoon, the discussion, last night, 4 o'clock, the 10th of November, continued, is going to be held, the congress,

February 10—14, the symposium, winter, began, the trip, the 10th of January, was made, January 10—15).

3. Answer the following questions making use of the words in brackets and supplying the preposition if necessary.

Example: When was the congress held? (October).
The congress was held in October.

1. When did the session start? (9 o'clock).
2. When was the conference held? (October 1—7).
3. When was the banquet held? (the afternoon).
4. When did the discussion begin? (last night).
5. When did the symposium close? (the 1st of July).
6. When was Mr. Clarke's paper presented? (the colloquium).
7. When do classes usually begin? (autumn).
8. When will the lecture begin? (11 o'clock).
9. When did you tell her the news? (this morning).
10. When do you have your English lessons? (the morning).
11. When are you going to present your paper? (May).
12. When did she make a trip to Armenia? (her holidays).

4. Translate into English paying attention to the prepositions of time.

1. Конференция состоялась (was held) в прошлом году.
2. Экзамен состоится (is going to be held) в июне.
3. Банкет состоится 20 мая.
4. Дискуссия началась в 2 часа.
5. Коллоквиум продолжался (continued) во второй половине дня.
6. Я представлю свой доклад (present my paper) в будущем месяце.
7. Доклад будет прочитан во время коллоквиума.
8. Симпозиум проходил с 1 по 6 ноября.
9. Мы занимаемся английским языком по утрам.

5. Translate into Russian paying attention to different uses of the preposition *by*.

1. The most noteworthy paper was presented by A. C. Clarke.
2. The banquet was addressed by Academician Sedov,

3. The opening ceremony was followed by a reception.
4. There was a discussion on the exploration of the solar system by radar.
5. I want you to complete this work by the end of the month.
6. He came by the morning train.
7. "Cybernetics" by Wiener was translated into many languages.

6. Translate into English using the preposition *by*.

1. Наши дома освещаются (are lighted) электричеством (electricity).
2. Некоторые делегаты приехали поездом.
3. Этот доклад представлен моим товарищем.
4. Мы закончим эту работу к январю.
5. Вы читали эту статью Ландау?
6. Кем написана эта статья?

7. Put questions to the words in italics. Mind the place of the preposition in the interrogative sentence.

Examples: 1) The banquet was addressed *by Academician Sedov*.
Who was the banquet addressed by?
2) The delegates came *from different countries of the world*.
Where did the delegates come from?

1. The opening ceremony was followed by *a reception*.
2. The morning session was on *energy conversion*.
3. The most noteworthy paper was presented by *A. C. Clarke*.
4. They waited for *the end of the discussion*.
5. The delegates were listening to *Academician Sedov*.

8. Insert prepositions or adverbs where necessary.

A

1. The 12th International Astronautical Congress was held... October 1—7, 1961 ... Washington.
2. The president ... the congress ... that year was L. I. Sedov.
3. The opening ceremony was followed ... a reception.
4. The technical sessions started ... 9 o'clock ... October 3.

5. The most noteworthy paper ... the first morning was presented ... A. C. Clarke.
6. This paper was presented... the Space Law Colloquium.
7. The colloquium began ... the morning and continued ... the afternoon.
8. Astrodynamics was treated ... a round-table concept.
9. The exploration ... the solar system ... radar was discussed ... October 4.
10. The traditional boat-trip made... Sunday gave good opportunities ... relaxed discussions ... groups ... experts.
11. The congress banquet held ... the evening was addressed ... Academician Sedov.

B

12. The recent meeting... the Geographical Learned Society was held ... last month.
13. It gave good opportunities ... discussions ... scientists ... different parts ... our country.
14. The exploration ... the Far East was discussed ... a special colloquium held ... the second day.
15. A very interesting paper was presented ... this colloquium ... a young researcher ... the Siberian research centre.
16. The colloquium was followed ... a lively discussion.
17. The final session was addressed ... the President of the Geographical Society.
18. She worked ... a teacher ... 1956—1965.
19. I shall be very busy... this morning, so let us meet ... the afternoon.

9. Insert words and expressions from the text so as to form antonymic pairs with those in italics.

1. The concert was *preceded* by a lecture. The lecture was ... by a concert.
2. A number of contributors made both *prepared* and ... comments.
3. A *formal* meeting often gives less opportunities for relaxed discussions than such an ... occasion as an excursion or a trip to the country.
4. I don't want to read *the same* book all over again. Would you mind giving me ... one?

5. The reception was given in the *morning* of the *first* day while the banquet was held in the ... of the ... day.

10. Paraphrase the sentences below substituting the words and expressions from the text for those in italics.

1. Have you been present at the *yearly* meeting of our Learned Society?
2. The morning session *began* at 10 o'clock.
3. The most *remarkable* paper was by Dr. C.
4. Don't miss this *chance* to speak to him.
5. Academician Sedov *spoke at* the banquet.
6. There *was* a reception *after* the opening ceremony.
7. The meeting *took place* on Monday.
8. *Certainly*, you are quite right.
9. *May be*, he will leave tomorrow.
10. The report *submitted* during the colloquium attracted general attention.
11. What was the *theme* of your report?

11. Insert words and expressions from the text.

A

1. The International Astronautical Congress is an ... meeting.
2. The 12th Astronautical congress was the first occasion that the meeting was ... in the USA.
3. Academician Sedov was the ... of this congress.
4. The opening ceremony... on October 1 was ... by a reception.
5. The technical ... started on October 3.
6. The paper by A. C. Clarke ... during the Space Law Colloquium ... widespread attention.
7. There were several ... sessions held on October 3.
8. Astrodynamics was treated as a round-table topic where a number of ... made both prepared and unprepared ...
9. There was also a discussion on the ... of the solar system.
10. On October 5 the delegates ... a boat-trip down the River Potomac.
11. The congress banquet ... in the evening was ... by Academician Sedov.

B

12. The recent ... of the students' learned society was held last night.
13. Meetings ... regularly once a year are called ...
14. Two sessions ... at the same time are called ...
15. After the final ... the delegates usually make a ... to some beautiful country-place.
16. Not all the papers ... by the delegates are discussed in detail.
17. Mathematics was my favourite ... at school.
18. The article which ... such widespread attention was published under the ... "The Problems of Modern Genetics".
19. The paper on the ... of the natural resources of Siberia attracted widespread...

12. Answer the following questions.

1. How often are International Astronautical Congresses held?
2. When was the International Astronautical Congress held in America for the first time?
3. What was the number of delegates from abroad?
4. Who was the president of the 12th Astronautical Congress?
5. What was the opening ceremony followed by?
6. Were there any simultaneous sessions held during this congress?
7. What paper attracted widespread attention in the first morning session?
8. Name the subject treated as a round-table topic.
9. When was the traditional boat-trip made?
10. What opportunities did it give to the delegates of the congress?
11. When was the congress banquet held and who was it addressed by?

13. React to the wrong statements below using some introductory phrases: ***you are not (quite) right, you are mistaken, you seem to be (quite) wrong, I can't agree with you.***

Example: As far as I've heard, Astronautical Congresses are national scientific gatherings held in the USA every three years.

You seem to be quite wrong. Astronautical congresses are annual meetings. These meetings are held in different countries and they are international, for the delegates come from different countries of the world. It was only the twelfth Astronautical Congress that was held in the USA, all the previous ones had been held in other countries.

1. I believe the president of the 12th Astronautical congress was an American.
2. If I am not mistaken, the opening ceremony was followed by a banquet addressed by the French delegate.
3. The paper presented by A. C. Clarke was not a very remarkable one, was it?
4. If I am not mistaken, the congress closed on October 3.
5. I believe all the delegates left as soon as the technical sessions were over for there weren't any entertainments provided for them.
6. To my mind, the atmosphere of the conference hall gives very good opportunities for relaxed discussions between groups of experts.
7. As far as I could gather from the text, there weren't any simultaneous sessions held during this congress, so that all the delegates could attend every session.

14. Construct sentences of your own making use of the words and expressions in italics.

Example: The 12th Astronautical congress *was held* in 1961.
Many scientific conferences are held in our country every year.

1. The opening ceremony *was followed by* a banquet.
2. The paper by A. C. Clarke *was presented* during the Space Law Colloquium.
3. This paper *attracted widespread attention.*
4. Academician Sedov *addressed* the congress banquet.

15. Use the following verb+noun combinations given in italics in translating the sentences below.

to give a lecture (a reception, a talk, a translation)

1. Д-р П. прочел две лекции по генетике (on genetics).
2. Мне понравились лекции, прочитанные д-ром П.
3. Председательствующий устроил прием для делегатов конгресса.
4. Прием был дан в гостинице «Москва» (the hotel "Moskva").
5. Профессор Н. выступил на открытии конгресса (in the opening session).
6. Речь, произнесенная профессором Н., привлекла всеобщее внимание.
7. Дайте перевод этого предложения (sentence).
8. Вы дали очень хороший перевод этой статьи.
9. Сделанный им перевод не совсем точен (not quite exact).

to hold a banquet (a conference, a discussion, an examination, a meeting)

10. Конференция была проведена в июне.
11. Когда состоится собрание?
12. Дискуссия, проведенная на утреннем заседании (in (at) the morning session) привлекла всеобщее внимание.
13. Экзамен будет проведен 5 января.
14. Председательствующий выступил на банкете, устроенном в Доме ученых (the House of Scientists).

to make a comment (a contribution, a discovery, an experiment)

15. Это открытие было сделано в 1933 г.
16. Сделанное им открытие привлекло всеобщее внимание.
17. Морган внес большой вклад в генетику (into genetics).
18. Я не собираюсь (I am not going to) выступать с какими-либо замечаниями.
19. Сделанные профессором Д. замечания очень полезны (useful).
20. Сколько опытов вы проделали на прошлой неделе?

21. Проделанные нами опыты будут обсуждаться на семинаре, который состоится в понедельник (Monday).

16. Translate into English.

A

1. Международные конгрессы по астронавтике являются ежегодными научными собраниями.
2. Конгресс 1961 года был проведен в Вашингтоне.
3. Это был первый случай, когда такое собрание было проведено в Америке.
4. Председателем этого конгресса был академик Седов из СССР.
5. После открытия конгресса состоялся прием.
6. Секционные (here: technical) заседания начались в 9 часов утра 3 сентября.
7. Доклад Кларка, сделанный во время коллоквиума, привлек к себе широкое внимание.
8. Во второй половине дня было проведено несколько параллельных заседаний.
9. 4 октября была проведена дискуссия об исследовании солнечной системы с помощью радара и радиоастрономии.
10. 5 октября делегаты совершили поездку на пароходе по реке Потомак.
11. На банкете, который состоялся вечером, с речью выступил академик Седов.

B

12. Симпозиум по исследованию Луны и планет (the Moon and the planets) был проведен в октябре.
13. Этот симпозиум привлек к себе широкое внимание.
14. Во время симпозиума состоялось специальное заседание, посвященное исследованию Луны с помощью ракет (rockets).
15. Заседание началось в 10 часов утра и продолжалось во второй половине дня.
16. Профессор П. представил доклад под названием «Важность исследования Луны для будущего человечества (the future of mankind)».
17. После доклада состоялась дискуссия.
18. Я должен представить свою диссертацию (thesis) в июне.

19. Тема моей диссертации...
20. Название моей диссертации...

17. Answer the following questions in detail so that these answers would make up a comprehensive account of your participation in the work of some scientific gathering.

1. Have you ever had an opportunity to be present at a large scientific meeting?
2. Was it a national or an international congress (conference, symposium)?
3. When and where was it held?
4. Who was its president?
5. What was the most noteworthy paper presented at this scientific meeting?
6. How long did this congress (conference, symposium) last?
7. How many simultaneous sessions were usually held on the same day?
8. Was there any banquet held after the final session?
9. Who spoke on that occasion?
10. Did you or any of your colleagues present papers at this congress (conference, symposium)?
11. Was your paper a success?
12. Was it discussed in detail?
13. Were there any discussions of general interest held during this congress (conference, etc.)?
14. What is your general impression of this congress (conference, etc.)?

Text 2

CHEMICAL WARFARE ON PLANT PESTS AND DISEASES

The first British Insecticide and Fungicide Conference was held at Brighton during November 7—9, 1961 under the presidency of Dr. H. G. Sanders, chief scientific adviser to the Ministry of Agriculture, Fisheries and Food. It was truly an international gathering, for of 470 delegates attending from official research stations, Government departments and manufacturing firms, nearly one-quarter came from fourteen countries overseas.

The conference consisted of ten successive sessions devoted to important present-day problems in plant pathology

and their possible solutions by chemical means. During the first two days each session began with one or more introductory paper by authorities on the subject under discussion, and these were followed by brief reports of research in progress at various centres. The morning of the third day was given over to research reports on new insecticides and fungicides, and on novel formulations as well as new methods of application. In the final session attention was directed to the problems involved in translating research into practice and in introducing insecticides and fungicides into agricultural practice both in Britain and overseas. In all, more than fifty papers or reports were presented from the research departments of official agricultural institutes and industrial firms, including a number from Holland, Germany and Italy.

Exercises

1. Give an adequate translation of the sentences below paying special attention to the parts in italics.

1. The first British Insecticide and Fungicide Conference *was held* at Brighton *under the presidency* of Dr. Sanders, *chief scientific adviser to* the Ministry of Agriculture, Fisheries and Food.
2. It was truly an *international gathering,* for of 470 delegates *nearly* one-quarter came from fourteen countries *overseas.*
3. The conference consisted of ten *successive* sessions devoted to important *present-day* problems in plant pathology and their possible solution *by* chemical *means.*
4. Each session began with an introductory *paper* by *an authority on the subject under discussion.*
5. These were followed by brief reports of research *in progress* at various centres.
6. The morning of the third day *was given over* to research reports on new insecticides and on *novel* formulations.
7. In the final session *attention was directed* to the problems involved in *translating research into practice* and in introducing insecticides into agricultural practice.
8. *In all*, more than fifty papers or reports were presented from the *research departments* of *official* agricultural institutes and industrial firms, including *a number* from Holland, Germany and Italy.

2. Paraphrase the sentences below making use of the preposition *on*. Mind: an authority (a book, a discussion, a lecture, a paper, a session) *on* some subject.

Examples: 1) The subject of the lecture was polymer chemistry.
The lecture was on polymer chemistry.
2) He knows modern literature very well.
He is an authority on modern literature.

1. The book deals with ancient history.
2. The morning session was devoted to energy conversion.
3. The subject of the discussion was space research.
4. The first lecture was concerned with proteins.
5. Her paper treated conditioned reflexes.

3. Paraphrase the sentences below making use of the preposition *in*. Mind: a class (a course of lectures, an examination, a lesson, a specialist) *in* some subject; to specialize *in* some subject.

Example: She missed her French classes.
She missed her classes in French.

1. They have their English lessons in the morning.
2. John passed his French examination last month.
3. Do you attend history classes?
4. His speciality is genetics.
5. I attend a course of lectures devoted to mathematics.

4. Insert the prepositions *in* or *on*.

1. Professor L. specializes ... French literature.
2. He is an outstanding authority ... Voltaire.
3. Last year we attended a course of lectures ... history.
4. The lecture ... Napoleon and his time attracted widespread attention.
5. He has got an interesting book ... computers.
6. The session ... radio astronomy was held in the conference hall.
7. We are going to take our examination ... mathematics next month.
8. She has presented a paper ... superfluidity.
9. Are you going to take part in the discussion ... the exploration of the Far East?
10. The boy has four lessons ... arithmetic every week.

5. Translate the following sentences using prepositions *in* or *on*.

1. Я посещаю курс лекций по истории.
2. Вы были на лекции о Шекспире (Shakespeare)?
3. Он сдал (passed) экзамен по физике два дня тому назад.
4. Профессор В. является крупным специалистом (leading authority) по химии полимеров (polymer chemistry).
5. Урок химии начнется в 3 часа.
6. Они представили доклад об исследовании Луны (the exploration of the Moon).
7. Наш профессор написал книгу о полупроводниках (semiconductors).
8. Заседание, посвященное проблемам радиосвязи (the problems of radiocommunication), началось в 9 часов утра.

6. Paraphrase the sentences below making use of the expressions *under the name, under the presidency, under the title*.

Examples: 1) The president of the conference was Dr. Sanders.
The conference was held under the presidency of Dr. Sanders.

Examples: 2) The title of the article was «Organic polymers».
The article was published under the title «Organic polymers».

1. The president of the twelfth Astronautical Congress was Academician Sedov.
2. The title of the book was «Birds».
3. William Porter became known as O'Henry.
4. Professor N. presided at the cancer conference.

7. Translate the following sentences using the expressions *under the name, under the presidency, under the title*.

1. Собрание состоялось под председательством профессора С.
2. Его доклад под названием «Основные проблемы современной физики» привлек к себе широкое внимание.

3. Анри Бейль писал под псевдонимом (pen-name) Стендаль.
4. Под каким заглавием опубликована эта книга?
5. Он жил в разных странах под разными фамилиями.

8. Translate the following sentences and then give them in the interrogative form.

1. The subject under discussion is of considerable interest.
2. He made a report of research in progress at his laboratory.
3. The book in question was published two years ago.
4. The problem under consideration is of great importance.
5. Special attention must be directed to the subject under study.
6. The paper under discussion was presented from the Research Department of our Institute.
7. The theory in question was first advanced by Professor L.

9. Substitute attributive clauses by attributes of the kind: *under consideration (investigation, study), in progress, in question.*

Example: The book I am talking about was published a year ago.
The book in question was published a year ago.

1. The problem which was being discussed attracted widespread attention.
2. Where is the book we were talking about?
3. We are going to make a report of research which is being carried on at our laboratory.
4. The methods which are being considered are applied at our Institute.
5. This professor is an outstanding authority on the subject which is being discussed.
6. The paper I am referring to was presented by my friend.
7. The subject which is being studied is of considerable interest.
8. There were some 10 reports of work which was being done at various research centres.

10. Translate into English using such expressions as *under consideration (discussion, investigation, study), in progress, in question.*

1. Рассматриваемая проблема имеет большое значение для ядерной физики (nuclear physics).
2. Расскажите нам об исследованиях, которые ведутся в вашем институте.
3. Доктор П. — один из крупнейших специалистов по обсуждаемому вопросу.
4. Доклад, о котором идет речь, был представлен научно-исследовательским отделом нашего института.
5. Данная книга была опубликована в прошлом году.
6. Я хочу знать об исследовательской работе, проводимой в этой лаборатории.
7. Изучаемый вопрос представляет большой интерес для физиков.

11. Insert prepositions where necessary.

A

1. The conference was held ... Brighton ... November 7—9, 1961 ... the presidency ... Dr. Sanders, chief scientific adviser ... the Ministry ... Agriculture.
2. Nearly one-quarter ... the delegates attending ... the conference came ... abroad.
3. The conference consisted ... ten sessions devoted ... present-day problems ... plant biology and their solution ... chemical means.
4. ... the first two days each session began ... an introductory paper ... an authority ... the subject ... discussion.
5. These introductory papers were followed ... reports devoted ... research ... progress ... various centres.
6. ... the final session attention was directed ... the problems involved ... translating research ... practice.
7. Insecticides are being introduced ... agricultural practice both ... Britain and abroad.

B

8. It is very important to introduce these new chemicals ... every-day practice.
9. Are you sure problems involved ... translating research ... practice can be solved ... these means?

10. Their reports were devoted ... research ... progress ... various research centres.
11. The opening session began ... a discussion ... reports presented ... outstanding authorities ... this subject.
12. The discussion began ... introductory remarks ... the president ... the congress.
13. All our attention must be directed ... the problem ... consideration.
14. The book ... discussion consists ... ten chapters devoted ... important present-day problems ... nuclear research.
15. Last year I attended ... a symposium ... nuclear research held ... the presidency ... Academician K.

12. Paraphrase the sentences below substituting words and expressions from the text for those in italics.

1. The conference was truly an international *meeting*.
2. *Almost* one-quarter of the delegates came from abroad.
3. The sessions *were concerned with* important present-day problems.
4. *Every* session *started* with an introductory paper by an authority on the subject *which was being discussed*.
5. These introductory papers were followed by *short* reports of research *which was being carried on* at various centres.
6. *Over* fifty papers and reports were *submitted*.
7. This formulation was an *absolutely new* one.
8. Water *is composed of* oxygen and hydrogen.
9. The symposium *contained* five sessions following one another.
10. *Almost* 100 people *were present at* the meeting.

13. Insert words and expressions from the text so as to form antonymic pairs with those in italics.

1. The conference consisted of a number of *simultaneous* and ... sessions.
2. Numerous *national* and ... conferences are held in Moscow every year.
3. Don't make your report too *long*. It must be quite...
4. This method is of great value both to the *theory* and to the ... of agriculture.
5. Both in the *opening* and in the ... session attention was directed to problems of general interest.

6. *To exclude* all possibility of doubt it would be better to ... into your report all the data obtained by your research team.
7. In Great Britain there exist both *private* and ... research stations and research institutes.

14. Insert words and expressions from the text.

A

1. The conference ... at Brighton under the ... of Dr. Sanders was an international ... for it was ... by many foreign scientists.
2. The conference ... of ten successive sessions ... to important problems in plant pathology.
3. Each session began with an ... paper by an ... on the subject under discussion.
4. These papers were ... by reports of research ... at various centres.
5. New ... of application were also discussed.
6. In the final session attention was ... to introducing insecticides into agricultural...
7. In all, more than fifty papers and reports were ... from ... departments of ... agricultural institutes.

B

8. This book ... of ten chapters ... to important problems in genetics.
9. Is there a solution of this problem by chemical...?
10. Thoughts are expressed by ... of words.
11. Scientific sessions following one another are called...
12. He is going to make a report of work ... at his laboratory.
13. Chemicals were ... into agricultural practice in the twentieth century.
14. Special ... must be directed to difficulties ... in translating technical texts from English into Russian.
15. I am sure this method will find wide ... in biological research.
16. Dr. L. is my scientific... He is an outstanding ... on semiconductors.
17. What was the main subject ... at the conference you attended?

18. Scientific ... of this kind are nearly always ... at colleges or at various ... centres.
19. Most of the colleges have special research...

15. Answer the following questions.

A

1. When, where and under whose presidency was the First British Insecticide and Fungicide conference held?
2. Why can it be considered an international gathering?
3. How many sessions did the conference consist of?
4. Were there any simultaneous sessions held during this conference?
5. What problems were the sessions devoted to?
6. Describe the order of each session during the first two days.
7. What was the order of the third morning session?
8. To what problems was attention directed in the final session?
9. How many papers and reports were presented in all?
10. Did all of them come from Great Britain?

B

11. What does your laboratory seminar usually consist of?
12. Name the average number of the participants.
13. What problem was the recent seminar devoted to?
14. Did it attract many people?
15. Who gave the introductory talk?
16. In what respect are such seminars especially useful?

16. React to the wrong statements below using some of the following introductory phrases: ***you are not (quite) right, you are mistaken, you seem to be wrong, I can't agree with you.***

Example: The First British Insecticide and Fungicide Conference was held under the presidency of Dr. Brown, head of the Agricultural Research Station at Brighton, wasn't it?

I'm afraid you are mistaken. This conference was held under the presidency of Dr. Sanders who was at the time chief scientific adviser to the British Ministry of Agriculture.

1. If I am not mistaken, the First British Insecticide Conference was a purely national scientific gathering.
2. I believe that both simultaneous and successive sessions were devoted to the problem of plant growth.
3. As far as I could gather from the text, each session began with a general discussion.
4. To my mind, in the final session attention was directed to problems of theoretical interest.
5. As far as I know, all the papers read at this conference were presented from private firms.

17. Construct sentences of your own making use of the words and expressions in italics.

Example: The session *was devoted to* a very important problem.
My paper is devoted to protein chemistry.

1. Dr. S. is *an authority on* polymer chemistry.
2. The subject *under discussion* didn't interest me very much.
3. They presented a report of research *in progress* at their Institute.
4. The morning session was held *under the presidency* of Dr. K.
5. *Special attention is directed* nowadays to language teaching.
6. The book *consists of* seven chapters.

18. Construct sentences of your own using some of the following combinations of adjectives and nouns.

1. International conference (congress, gathering, relations).
2. Research department (paper, station, work, worker).

19. Translate into English.

A

1. Первая Британская конференция по инсектицидам состоялась в Брайтоне в 1961 году.
2. Конференция была проведена под председательством доктора Сандерса.
3. Конференция состояла из 10 последовательных заседаний.

4. Заседания были посвящены важным современным проблемам патологии растений и решению их химическим путем.
5. В течение первых двух дней каждое заседание начиналось с вводного доклада специалиста по данному вопросу.
6. За вводным докладом следовали краткие сообщения об исследованиях, которые ведутся в различных научно-исследовательских центрах.
7. На последнем заседании особое внимание было обращено на вопросы, связанные с внедрением в практику результатов научных исследований.
8. Всего научно-исследовательскими отделами государственных институтов и промышленных фирм было представлено более 50 докладов.

B

9. Моя диссертация посвящена важным современным проблемам теоретической физики.
10. Она состоит из трех глав (chapters).
11. Первая глава является вводной.
12. В этой главе я обсуждаю теории, выдвинутые (advanced) ведущими специалистами по данному вопросу.
13. Во второй главе описываются результаты исследования, которое я провел в прошлом году.
14. В этой главе я упоминаю (mention) также и исследования, которые проводятся в других институтах.
15. Последняя глава посвящена вопросам, связанным с практическим применением результатов моего исследования.
16. Профессор Н. является крупнейшим специалистом по болезням растений (plant pathology).
17. В прошлом году я присутствовал на международном симпозиуме по физике.
18. Он был проведен под председательством академика Н.
19. Научные собрания такого рода очень важны.
20. Они обычно проводятся в крупных научно-исследовательских центрах или колледжах.

Text 3

FIFTH INTERNATIONAL CONGRESS OF BIOCHEMISTRY

The Fifth International Congress of Biochemistry was held during August 10—16, 1961 under the presidency of Academician A. I. Oparin. The number of registered participants, about 4500 together with an additional 1000 or so guests of the Organizing Committee, was larger than at any previous congress, and it seems that each congress, from the first, which was held in Cambridge in 1949, to the present one in Moscow, attracts more and more workers who are interested in one or many aspects of the broad subject of biochemistry.

The congress held its opening ceremony in the impressive Palace of Sports and the session closed with a masterly lecture by Professor G. E. Green. The plenary session was followed by a most enjoyable concert given by the Moscow Symphony Orchestra.

The scientific programme which followed included a series of symposia, and between two and three thousand original contributions. The main congress symposia were held in the large assembly hall of the University or in auditoria of ample seating capacity and were well attended. The main speakers in these sessions were allowed up to 40 minutes to develop their subject and the subsequent speakers 15 minutes, a half to three-quarters of an hour being set aside at the end of the session for discussion. The time proved to be adequate, and the discussions were usually lively. The arrangements for simultaneous translations in these meetings were excellent. Pre-prints of the main congress lectures and of the contributions to the symposia were available to participants before the meeting.

Probably the largest part of the scientific programme was associated with the activities of the 28 sections. Each section had its own interpreter, and language difficulties were thereby reduced to a minimum. Abstracts of the short communications were available in the form of a separate book and where the text was submitted in Russian, an English translation was also provided.

There was a useful display of scientific apparatus originating from 14 countries, and an attractive exhibition

of modern books dealing with all aspects of biochemistry and published in many different countries.

Most of those attending the congress were accommodated in the student quarters of the University or in two of the largest hotels in Moscow, Hotel "Ukraine" and Hotel "Moskva". Transport between the University and hotels was well maintained throughout by excellent bus service. Academician Oparin gave a series of receptions to the participants of the congress. There was a series of interesting tours arranged by Intourist.

The fifth International Congress of Biochemistry was the largest congress yet held in the USSR. The closing plenary session was especially noteworthy for the outstanding and informative lecture on "Proteins, their Function and Structure" given by Professor F. Sorm. This was followed by a number of short addresses of appreciation by delegates from several countries, after which the president closed the proceedings and formally announced that the next congress would be held in New York in July 1964.

Exercises

1. Give an adequate translation of the sentences below paying special attention to the parts in italics.

1. *The number* of registered participants was about 4500.
2. The lecture by Professor F. Sorm was followed by *a number* of short addresses of appreciation *by* delegates from different countries.
3. The opening plenary session was followed by *a most* enjoyable concert.
4. The scientific programme which followed included a series of symposia, and *between* two and three thousand *original contributions.*
5. Each congress of this kind attracts more and more workers who *are interested in* one or many *aspects* of the broad subject of biochemistry.
6. *The congress held its opening ceremony* in the impressive Palace of Sports.
7. The *main speakers* were allowed up to 40 minutes to *develop their subject* and the *subsequent speakers* 15 minutes.
8. The time *proved to be adequate* and the discussions were lively.

9. The *arrangements* for *simultaneous translations* were excellent.
10. *Pre-prints* of the main congress *lectures were available* to the participants before the meetings.
11. *Abstracts* of communications were *available* in the form of a separate book.
12. There was an attractive exhibition of modern books *dealing with* all aspects of biochemistry.
13. *Most of* those attending the congress *were accommodated* in the *student quarters* of the University.
14. The president *closed the proceedings* and *formally* announced that the next congress would be held in 1964.
15. It was the largest congress *yet* held in the USSR.

2. Translate the sentences below, then find the logical object to the verb in italics and give the general formula: verb+object.

Example: The opening session was held in the assembly-hall of the University.
To hold a session.

1. The symposia *were* very well *attended.*
2. Where the text *was submitted* in Russian, an English translation *was* also *provided.*
3. The proceedings *were closed* on the 16th of August.
4. There *was* a series of interesting tours *arranged* by Intourist.
5. The closing plenary session was especially noteworthy for the outstanding lecture *given* by Professor Sorm.
6. There *was* a series of receptions *given* to the participants by Academician Oparin.

3. Translate into Russian paying attention to different uses of the word *most*.

1. A most attractive exhibition was organized at the Public library.
2. It was the most attractive exhibition of the kind that had ever been arranged at the Public library.
3. This exhibition of books was most attractive.
4. Most scientific conferences attract scientists from all over the world.
5. The most important communication at the congress was given by Dr. L.
6. It was a most interesting communication.
7. To my mind, this communication was most interesting.

4. Paraphrase the sentences below substituting *most* for the words in italics. Mind the articles.

Example: He has been ill *the greatest part of* the term.
He has been ill most of the term.

1. This is a *very* profound book.
2. *The majority* of the participants were accommodated in Hotel "Moskva".
3. The discussions were *exceedingly* lively.
4. *The greatest part* of the material has been verified experimentally.

5. Translate into English using the word *most*. Mind the articles.

1. Эта статья весьма интересна.
2. Это очень интересная статья.
3. Это самая интересная статья первого номера (number) журнала.
4. Большая часть статей написана известными учеными.
5. Большинство людей думают таким же образом (think so).

6. Translate into Russian paying special attention to the eaning of the word *number*.

1. I don't know the number of English books available at this library.
2. There was a large number of English books available at this library.
3. There is a number of books on biochemistry available at this library.
4. Would you mind going to room number six.
5. What is the number of his car?
6. 3, 5, 7, etc. are odd numbers.
7. Show me the current number of this magazine.

7. Paraphrase the sentences below using the word *number*. Mind the articles.

1. The conference was attended by very many delegates.
2. Several delegates came long before the sessions began.
3. I don't know the amount of books on genetics available at this library.
4. We have our English lessons in room 5.
5. His article is published in the current issue of the journal "Cytology".

8. **Translate into English using the word *number*. Mind the articles.**

1. Он написал ряд статей по кибернетике (cybernetics).
2. У меня есть несколько книг современных английских писателей.
3. Автор ограничил (limited) число примеров (examples).
4. Автор дает ряд интересных примеров.
5. Она живет в комнате номер 9.
6. Вы читали последний номер журнала «Генетика»?
7. Два, четыре, шесть, восемь — четные (even) числа.

9. **Insert articles where necessary.**

...conference I attended ... month ago was organized by ... Academy of ... Sciences of ... USSR. ...number of registered participants was larger than at ... previous conference of this kind which was held ... last year. ...conference attracted ... large number of ... outstanding scientists. ...number of people came from abroad. ...opening ceremony was held in ... assembly hall of ... Moscow University. At ... end of each session ... hour was set aside for discussion. ...most significant communication at ... conference was given by ... Professor L. There was ... most interesting exhibition of ... books arranged in ... room number 3 of ... main building of ... University. ...series of ... interesting tours followed ... scientific programme. ...most of ... participants were accommodated in ... students' quarters of ... Moscow University. Abstracts of ... most important contributions were published in ... current number of ... journal „Cytology".

10. **Paraphrase the sentences below using the expression *to be interested (in).***

E x a m p l e: Does mathematics interest you?
Are you interested in mathematics?

1. I take great interest in modern literature.
2. Do you take any interest in cybernetics?
3. Do these experiments interest you?
4. To my mind, bionics is a very interesting branch of science.
5. These problems are of great interest for me.
6. What problems interest you especially?

11. Translate into English making use of the expression *to be interested (in).*

1. Он не интересуется естественными науками (natural sciences).
2. Он очень интересуется этой проблемой.
3. Какими аспектами биохимии вы интересуетесь?
4. Этот случай (case) интересует всех нас.
5. Нас интересуют ваши планы на будущее.

12. Translate into Russian paying special attention to the expression *to deal (with).*

1. It is very unpleasant to deal with such people.
2. This man is difficult to deal with.
3. This book deals with semiconductors.
4. What problems does he deal with in his book?
5. What problems are dealt with in his book?
6. What is the best way to deal with this difficulty?
7. Entomology deals with all kinds of insects.

13. Paraphrase the sentences below substituting the expression *to deal (with)* for the words in italics. Mind the forms: to deal — dealt — dealt.

Example: 1) The first lecture *is on* proteins.
The first lecture deals with proteins.
2) Her paper *was devoted* to antiparticles.
Her paper dealt with antiparticles.

1. This book *is about* the Far East.
2. Arithmetic *has to do with* numbers and how to work with them.
3. I don't like *to have to do with* such people.
4. The first session *was concerned with* subcellular particles.
5. How shall we *settle* this matter?
6. What aspects of nuclear physics does this paper *consider?*

14. Translate into English using the expression *to deal (with).*

1. Эта статья касается очень важной проблемы.
2. Астрономия изучает небесные тела (celestial bodies).
3. Он умеет (knows how to) обращаться с животными (animals).

4. Какими вопросами вы занимаетесь в настоящее время?
5. Вечернее заседание было посвящено спутникам связи (communication satellites).
6. Я не люблю иметь дело с такими людьми.

15. Put questions to the words in italics. Mind the place of the preposition in the interrogative sentence.

Example: The lecture by Professor Sorm dealt with *proteins.*
What did the lecture by Professor Sorm deal with?

1. The session closed with *a masterly lecture by Prof. Green.*
2. The opening plenary session was followed by *a most enjoyable concert.*
3. The largest part of the scientific programme was associated with *the activities of the 28 sections.*
4. The book deals with *many aspects of biochemistry.*
5. They are interested in *bionics.*
6. The closing plenary session was especially noteworthy for *the lecture on proteins.*
7. She specializes in *cybernetics.*

16. Answer the following questions using the words given in brackets.

Example: What subject does she specialize in? (polymer chemistry).
She specializes in polymer chemistry.

1. Who was the conference attended by? (specialists in biochemistry; leading authorities on the biochemistry of the cell; all those interested in nuclear research).
2. What was the opening plenary session followed by? (a reception, a concert).
3. What did the congress close with? (a lecture by Professor N.; an address by the president of the congress; a reception given to all its participants).
4. What was the symposium you have recently attended especially noteworthy for? (the contribution presented by Dr. L.; the masterly lecture given by Professor F.;

the general spirit of friendly cooperation in scientific research).

5. What does the book under discussion deal with? (nuclear research; solid state physics; semiconductors).
6. What fields of chemistry are you especially interested in? (inorganic compounds, polymer chemistry, the chemistry of rare-earth elements).

17. Substitute the words given in brackets changing the prepositions where necessary.

Example: I am going to present my paper *in* March. (the conference).

I am going to present my paper *at* the conference. (to give).

I am going to give my paper *at* the conference.

(Monday, the colloquium, English, to submit, next week, May, the 1st of October, a scientific journal, 1969).

18. Insert prepositions where necessary.

A

1. The number ... those attending ... the fifth Biochemical Congress was about 5500.
2. The opening ceremony closed ... a lecture followed ... a concert given ... the Moscow Symphony Orchestra.
3. The lecture ... the structure ... subcellular particles was given ... Professor Green. It attracted ... the attention ... all those interested ... different aspects ... biochemistry.
4. ... the end ... each session an hour was set aside ... discussion.
5. Language difficulties were reduced ... a minimum as the arrangements ... simultaneous translations were excellent. The majority ... foreign participants could hear speeches and lectures ... their native languages or ... the language they knew better.
6. A number ... interesting tours was organized ... Intourist.
7. There was arranged an exhibition ... books dealing ... different aspects ... biochemistry.
8. The congress closed ... a series ... receptions given ... the participants ... Academician A. I. Oparin.

B

9. I attended ... a very interesting conference held ... the presidency ... an outstanding scientist.
10. Are you interested ... the problem we are discussing?
11. This book deals ... many aspects ... the broad subject ... spectroscopy.
12. The first chapter ... my thesis closes ... a short summary ... the work done ... this field.
13. The summary will be given both ... Russian and ... English.
14. Can you speak ... English fluently or are you only able to read special literature ... this language?

19. Translate into Russian paying special attention to the expression *to be available.*

1. Is this article available in Russian?
2. The book I am interested in is not available at our library.
3. Tickets for the concert were available to all the participants of the congress.
4. These papers will soon be available in the form of a separate book.

20. Answer the following questions using the words given in brackets.

Example: Where is this book available? (the Public Library).
This book is available at the Public Library.

1. When and where were the pre-prints available? (the library, the reading-hall, the opening session, the colloquium).
2. Who were they available to? (the participants of the congress, those interested in this particular field of research, all those dealing with different aspects of biochemistry).
3. In what language were they available? (Russian, English, all major European languages, many different languages of the world).

21. Substitute the words given in brackets changing the prepositions where necessary.

Example: These data were not available last year. (1966).

These data were not available *in* 1966. (our researchers).
These data were not available *to* our researchers.

(these papers, the conference, were presented, the form of a separate book, January, will be submitted, pre-prints, next week, Russian, are available, all the participants, our library, English books).

22. Translate into English using the expression *to be available.*

1. Эта статья есть на русском языке.
2. Оттиски имеются в форме отдельной книги.
3. Краткие резюме были у всех участников конгресса.
4. Где имеются эти данные?
5. Книги, которой вы интересуетесь, в нашей библиотеке нет.

23. Translate into Russian paying special attention to the meaning of the verb *to prove.*

1. The symposium I attended last month proved very useful.
2. The book she was interested in proved to be available at the Public Library.
3. The time set aside for the discussions proved quite adequate.
4. My colleagues proved to be familiar with the problem under discussion.

24. Give an affirmative answer to the following questions adding some details.

Example: Did the lecture you attended yesterday prove interesting?
Yes, it did. It proved very interesting, for it was given by an outstanding authority on the problem under discussion.

1. Did the time set aside for the discussions prove adequate?
2. Did the book you were looking for prove available anywhere?
3. Did the paper by Professor P. prove of any special interest to you?
4. Did the conference held at Brighton prove an international gathering?

25. **Translate into English using the verb** *to prove.*

1. Этот метод оказался очень полезным.
2. Времени для дискуссии оказалось достаточно.
3. Доклад оказался весьма интересным.
4. Он оказался одним из ведущих специалистов по обсуждаемому вопросу.

26. **Change the following sentences from Active into Passive.**

Example: We shall hold this meeting to-morrow.
This meeting will be held to-morrow.

1. I shall submit my paper in Russian.
2. They reserved half an hour for answering questions.
3. The president addressed the congress.
4. 5500 researchers attended the 5th Congress of Biochemistry.
5. An enjoyable concert followed the opening plenary session.
6. On the last day the president held a banquet for all the participants of the congress.
7. Interpreters provided simultaneous translations of all the major contributions.

27. **Substitute the words given in brackets providing the passive form of the verb and changing the preposition where necessary.**

Example: This paper was presented by my colleague. (to submit).
This paper was submitted by my colleague. (October).
This paper was submitted *in* October.

(last month, scientific journal, to send, to appear, the translation, 1965, England, to provide, my collaborator, to give, the paper, to write, his stay in England).

28. **Paraphrase the sentences below substituting words and expressions from the text for those in italics.**

1. Professor N. gave *a number of* lectures.
2. His lecture on semiconductors was *particularly remarkable.*
3. Who *organized* this exhibition?
4. When are you going *to present* your paper?
5. I hope that a Russian translation of this article will also be *given.*

6. About 1000 delegates *were present at* the closing ceremony.
7. *Very many people were present at* the lecture.
8. Are you going *to have* a meting to-night?
9. The discussion is *to take place* to-morrow.
10. How much time will be *reserved* for answering questions?
11. The delegates were *given rooms* in a very good hotel.
12. The conference *ended* with a lecture by a well-known French biochemist Dr. K.
13. What English books *can be obtained* at our library?
14. This sum of money is not *enough* for a journey from England to America.
15. Name the *principal* towns of this state.

29. Insert words and expressions from the text.

A

1. The Fifth Congress of Biochemistry was ... in 1961.
2. The sections ... their meetings in the building of the Moscow University.
3. The number of ... was about 5500.
4. The congress was attended by a number of outstanding scientists ... in different aspects of biochemistry.
5. The ... speakers were allowed up to 40 minutes to ... their subject and the ... speakers about 15 minutes.
6. Language difficulties were ... to a minimum as each section had its own ... and the arrangements for ... translations in the plenary sessions were excellent.
7. An exhibition of books ... with all aspects of biochemistry was ... in the foyer.
8. After the lecture on proteins ... by Professor Sorm the president closed the...

B

9. Many scientific conferences are ... in Moscow every year.
10. Yesterday I attended a very interesting lecture on language ... by an outstanding English linguist.
11. The lecture was very well ... and was ... by a lively discussion.
12. If you are going to ... your paper in Russian you must ... an English translation of the summary.

13. Were the ... for simultaneous translations available to all the ... of the conference which you ... last month?
14. Tickets for this concert are still ... at the booking-office.
15. About an hour is ... for discussion at our laboratory seminars and this time usually proves...
16. What ... of biology are you especially ... in?
17. This article ... with some very important... of nuclear physics.

30. Insert adjectives derived from the same root as the words in italics. You will find all of them in the text.

1. The two methods *differ* greatly. The methods are quite...
2. They *enjoyed* the concert. The concert was really...
3. Dr. S. gave a lot of *information* in his paper. The paper by Dr. S. was very...
4. The congress *closed* with a session held under the presidency of Academician M. Academician M. presided at the ... plenary session.
5. You should *avail* yourself of the books in our library. These books are ... in our library.
6. I was *impressed* by his speech. His speech was very...
7. The lecture by Dr. L. *interested* everybody. It was really...
8. Serov was a great *master* of portrait. We admire his ... portraits.
9. The exhibition *attracted* a lot of people. It was a very ... exhibition.
10. This picture seems full of *life*. The colours are bright and...
11. We often *use* this method. The method is really...
12. "Nature" is a weekly journal of *science*. It is a ... journal.

31. Find in the text the combinations of nouns with adjectives and attributive nouns equal in neaning to the Russian ones given below.

1. Приятный концерт.
2. Мастерская лекция.
3. Основной докладчик.
4. Содокладчик.
5. Достаточное время.
6. Оживленная дискуссия.
7. Имеющиеся оттиски.

8. Синхронный перевод.
9. Прекрасные приспособления (устройства).
10. Научная программа.
11. Различные страны.
12. Автобусное сообщение.
13. Интересная поездка.
14. Примечательное заседание.
15. Выдающийся доклад.
16. Краткое сообщение.
17. Следующий съезд.
18. Полезная демонстрация (показ).
19. Привлекательная выставка.
20. Величественный дворец.

32. Paraphrase the sentences below.

Example: Academician Oparin *presided at* the fifth Biochemical congress.
Academician Oparin was the president of the fifth Biochemical Congress.
The fifth Biochemical Congress was held under the presidency of Academician Oparin.

1. Dr. Sanders *presided at* the first British Insecticide and Fungicide Conference.
2. The twelfth Astronautical Congress *was held under the presidency of* Academician L. I. Sedov.
3. Who *was the president of* the First Biochemical Congress?
4. *Under whose presidency was* the recent all-union cancer conference held?
5. Who *presided at* the session on proteins?

33. Answer the following questions.

1. When and where was the fifth International Congress of Biochemistry held?
2. Who presided at this congress?
3. What was the number of the participants and that of the guests of the organizing committee?
4. Who gave a lecture in the opening plenary session?
5. What was the number of sections at work?
6. How much time were the main speakers allowed to develop their subject?
7. What helped the foreign participants to take an active part in the work of the congress?
8. What was the closing plenary session especially noteworthy for?

9. Where were most of the participants accommodated?
10. Name the entertainments offered to the delegates of the congress.

34. Give an extensive answer to the questions below making use of the words in brackets. Introduce your answers with one of the following phrases: *certainly, of course, if I am not mistaken, as far as I know, to my mind.*

Example: Were the participants of the Fifth Congress of Biochemistry offered any entertainments? (session, to be followed by, concert, enjoyable, to arrange, a tour, a reception).

Of course, very many entertainments were provided for the participants of the congress. The opening plenary session was followed by a most enjoyable concert. Besides, Intourist arranged a series of interesting tours and the president of the congress gave a number of receptions to its participants.

1. Was the fifth Congress of Biochemistry well attended? (the largest congress of this kind yet held, to attract workers, to be interested (in), the number of participants).
2. The discussions were usually lively, weren't they? (preprints, available, to submit papers, language difficulties, arrangements for simultaneous translations, excellent, to set aside time, to prove adequate).
3. What else contributed to the success of the congress? (display, exhibition, scientific apparatus, books dealing with, to arrange tours, excursions, to give receptions).
4. Were the participants able to attend all the sessions they were especially interested in? (to accommodate, students' quarters, not far (from), to maintain transport, excellent bus service).

35. React to the wrong statements below using some of the following introductory phrases: *you are not (quite) right, you are mistaken, you seem to be (absolutely) wrong, I can't agree with you.*

Example: If I am not mistaken, the first International Congress of Biochemistry was held in Moscow in 1961.

No, you are not right. The first Congress of Biochemistry was held in Cambridge in 1949. It was the fifth Biochemical Congress which was held in Moscow in 1961.

1. I am of the opinion that the fifth Congress of Biochemistry was not a very large one.
2. As far as I have heard, the congress held its opening ceremony in the main building of the Moscow University.
3. To my mind, the time set aside for discussion was not quite adequate. Besides, language difficulties and the absence of pre-prints prevented them from being lively.
4. As far as I could gather from the text, all the papers had to be submitted in Russian.
5. The accommodations were rather poor, weren't they?
6. It was Professor Green who closed the proceedings.
7. If I am not mistaken, the participants were not informed about the supposed date of the next Biochemical Congress.
8. I believe, there were not any special entertainments provided for those who took part in the work of this congress.

36. Construct sentences of your own making use of the words and expressions in italics.

Example: After Professor Sorm's lecture on proteins the president *closed the proceedings*.
After the proceedings were closed some of the delegates went on a trip to the country.

1. The congress attracted workers *interested in* one or many aspects of the broad subject of biochemistry.
2. The opening ceremony *was followed by* an enjoyable concert.
3. Pre-prints *were available* to the participants before the meeting.
4. There was an attractive exhibition of books *dealing with* all aspects of biochemistry.
5. Where the text *was submitted* in Russian, an English translation *was* also *provided*.

6. The number of *participants* was larger than at any previous congress.
7. The main congress symposia *were very well attended.*

37. Find in the text verb + noun combinations equal in meaning to the Russian ones given below and use some of them in translating the following sentences.

A

Провести дискуссию (заседание, конференцию, экзамен), присутствовать на заседании (на уроке, на лекции), представить доклад (диссертацию), интересоваться вопросом (проблемой и т. д.), рассматривать вопрос, закрыть заседание, дать перевод, устроить прием, дать концерт, организовать экскурсию (выставку).

B

1. Когда была проведена дискуссия по биохимии?
2. Вы присутствовали на заседании, которое было проведено под председательством д-ра В.?
3. Сколько человек присутствовало на этом заседании?
4. Заседание, на котором я присутствовал, было проведено в концертном зале Университета.
5. Я должен представить этот доклад в январе.
6. Доклады, представленные делегатами, обсуждались на утреннем заседании.
7. После того как все вопросы были рассмотрены, председательствующий закрыл заседание.
8. Кто организовал эту экскурсию?
9. Экскурсия, организованная Интуристом, была очень интересной.
10. Дайте перевод этой статьи.
11. Сколько вопросов было рассмотрено на утреннем заседании?

38. Translate into English using the following prepositions.

at

1. Заседание началось в 9 часов.
2. Дискуссия была проведена в конце заседания.
3. На этом заседании председательствовал (presided) профессор Р. (Mind the order of words).
4. Он работает в научно-исследовательском институте.
5. Эти книги имеются (are available) в нашей библиотеке.

by

6. Я присутствовал на лекции профессора Грина.
7. Я присутствовал на лекции, прочитанной (given) профессором Грином.
8. На симпозиуме присутствовало 100 делегатов. (Give a passive construction).
9. После пленарного заседания состоялся концерт. (Give a passive construction).
10. Ряд интересных поездок был организован Интуристом. (Give a passive construction).
11. Эти данные были получены при помощи радара (radar).
12. Большинство делегатов приехало поездом (train).
13. Статья будет закончена к июню.

for

14. Он занимается английским три года.
15. Заседание продолжалось четыре часа.
16. Около (about) часа было отведено (set aside) на дискуссию.
17. Приспособления (arrangements) для синхронного перевода (simultaneous translations) были очень хорошими.
18. Интурист организовал ряд интересных поездок для участников конгресса.

in

19. Симпозиум состоялся в 1960 году.
20. Конференция была проведена в Ленинграде в июне.
21. Профессор Л. выступил на открытии конгресса (opening session).
22. Д-р Г. прочтет курс лекций по истории.
23. Он будет читать эти лекции утром в аудитории 5.
24. Они сдали экзамен по физике в сентябре.
25. Когда будет первое занятие по биологии?
26. Мой друг — специалист по восточным языкам (oriental languages).
27. Она специализируется по биохимии.
28. Мы очень интересуемся исследованиями, проводимыми в Англии.
29. Статья, о которой идет речь, была опубликована в 1962 году.

30. Текст доклада был представлен на русском языке.
31. Напишите по-английски краткое резюме (summary) вашей статьи.

on

32. Лекция по математике состоится в понедельник (Monday).
33. Симпозиум по генетике начался в среду (Wednesday).
34. Заседание, посвященное космическим излучениям (cosmic radiation), состоится 20 января.
35. Он является одним из крупнейших авторитетов по астронавтике (astronautics).
36. Профессор С. написал ряд интересных статей по сверхтекучести (superfluidity).
37. Они получили ценные данные по спектрам эмиссии (emission spectra).
38. Наша лаборатория расположена на третьем этаже (floor).

under

39. Конференция была проведена под председательством д-ра С.
40. Профессор Е. представил доклад под заглавием...
41. Обсуждаемые проблемы очень важны.
42. Исследуемые вопросы чрезвычайно важны.
43. Он работает под руководством доктора Б.
44. Это правило выполняется (This rule holds) при следующих условиях.

with

45. Заседание началось с доклада академика Н. и кончилось общей (general) дискуссией.
46. Эта статья кончается кратким резюме (summary).
47. Он занимается условными рефлексами (conditioned reflexes).
48. Книга касается очень интересных проблем.
49. Вы знакомы (Are you familiar) с этими теориями?
50. Он работает вместе с моей сестрой.

39. Translate into English.

А

1. Пятый Международный биохимический конгресс был проведен в Москве в 1961 году под председательством академика Опарина.

2. Открытие конгресса состоялось во Дворце спорта.
3. После пленарного заседания состоялся очень хороший концерт московского симфонического оркестра.
4. Программа конгресса включала ряд симпозиумов.
5. На всех заседаниях присутствовало очень много народа.
6. Основным докладчикам давалось 40 минут для изложения вопроса, содокладчикам — 15 минут.
7. В конце каждого заседания полчаса отводилось для обсуждения, и затем председательствующий закрывал заседание.
8. Дискуссии бывали обычно весьма оживленными, так как оттиски основных докладов имелись у делегатов до заседаний.
9. В работе секций принимали участие переводчики, которые давали перевод самых важных докладов.
10. Резюме всех докладов на английском языке имелись в виде отдельной книжки.
11. Был также организован показ научной аппаратуры и выставка книг по самым интересным аспектам биохимии.
12. Большинство участников конгресса было размещено в гостиницах и студенческих общежитиях Университета.
13. Сообщение между гостиницами и Университетом осуществлялось автобусами.
14. Президент конгресса дал несколько приемов для его участников.
15. Интурист организовал ряд весьма интересных экскурсий и поездок.
16. Конгресс привлек много выдающихся ученых, интересующихся различными аспектами биохимии.
17. Это был самый крупный конгресс, который когда-либо (до этого) проводился в СССР.

B

18. Экзамен состоится в понедельник.
19. Дискуссия была проведена в актовом зале Университета.
20. Симпозиум по генетике был проведен под председательством д-ра Г.
21. Ряд докладов касался различных сторон проблемы наследственности (heredity).

22. Докладчикам давалось полчаса для изложения вопроса.
23. Все доклады обычно сопровождались оживленной дискуссией.
24. Для иностранных (foreign) участников симпозиума давался перевод всех докладов на английский язык. (Mind the order of words).
25. Участники симпозиума были размещены в нескольких крупных гостиницах.
26. Президент Академии наук дал прием для участников симпозиума.
27. Какие вопросы рассматриваются в вашей диссертации (thesis)?
28. Вы интересуетесь физикой твердого тела (solid state physics)?
29. Есть целый ряд проблем, которыми я особенно интересуюсь в настоящее время (at present).
30. Какие английские книги имеются в библиотеке вашего института?
31. В нашей библиотеке имеются книги по важнейшим разделам физики.
32. Вчера я был на очень интересной лекции по химии белков (proteins), которую прочел профессор Б.
33. В своей лекции профессор Б. коснулся наиболее важных сторон этой интереснейшей области биохимии.

40. Speak about a scientific gathering you attended (see the list of questions in the Supplement).

SUPPLEMENT

List of Questions

1. Have you ever attended a scientific congress (conference, symposium)?
2. What problem was it devoted to?
3. When and where was it held?
4. Who was its president? (Under whose presidency was it held?)
5. What was the approximate number of the participants?
6. Were there any foreign delegates invited and if so, in what way were language difficulties dealt with?
7. Where was the opening ceremony held?

8. Who lectured in the opening plenary session and what was the subject under discussion?
9. What was the number of sections at work and how many sessions were usually held simultaneously?
10. Were the abstracts of the main communications available to the delegates before the meetings?
11. Which of the problems touched upon attracted general attention and why?
12. Who was the most significant communication at this conference given by?
13. What problems did it deal with?
14. Have you given a contribution at this congress (conference, symposium)?
15. How much time were you allowed to develop your subject?
16. How much time was set aside for discussions? Did this time prove adequate? Were the discussions usually lively?
17. Did you take part in any of these discussions?
18. When were the proceedings closed?
19. What was this congress (conference, symposium) especially noteworthy for?
20. Were there any interesting tours or excursions arranged for its participants?
21. How were the delegates accommodated?
22. Was there any banquet given to the participants and guests of this congress (conference, etc.)?
23. Who addressed the banquet?
24. Are you going to attend any other scientific gathering of this kind in the nearest future?
25. When and where is it going to be held?

Additional Texts

(to retell using words and expressions trained in this section)

Tropical Ecology in India

A symposium on «Ecological Problems in the Tropics» was held in Allahabad during February 3—5, 1961. The meetings were attended by more than one hundred scientists from all parts of the country. Dr. Randhawa, vice-president of the Indian Council of Agricultural research, in his opening address specifically stressed

the importance of ecological research in various development projects that the Government of India has now taken in hand. Dr. G. S. Puri, director of the Central Botanical Laboratory, Allahabad, who had organized the symposium, pointed out the progress so far made in Indian ecology, and the need for a coordinated research programme in ecological studies in the tropics. He emphasized that the vegetation and animal life in the tropics raised problems peculiar to these climatic conditions.

Forty-five papers were contributed to the symposium.

A committee to implement and expand the results of the symposium and to raise the necessary funds needed for supporting the project in cooperation with the International Society for Tropical Ecology was formed.

Prague Conference on the Physiology of Postnatal Ontogenesis

An International Conference on the physiology of postnatal ontogenesis in mammals and man was held by the Czechoslovak Academy of Sciences in 1956. Physiologists from England, the German Democratic Republic, Rumania, the Soviet Union, U. S. A., Czechoslovakia and Yugoslavia took part in the conference.

The agenda comprised three subjects: the development of control mechanisms, the development of the nervous system and the development of adaptations.

The conference opened with a paper by J. Krecek, on «The consumption of water and ions in young rats». A number of papers dealt with questions of heat regulation at different periods of growth. Discussion of the second subject on the agenda was concluded with P. K. Anokhin's (Moscow) paper on «System genesis as a general pattern of the maturation of functions in the prenatal period». In the «miscellaneous» section some interesting information was given on certain important methodological problems relating to the conduct of experiments on animals in the early stages of life.

The presence at the Conference of the leading Czechoslovakian paediatrists indicates the great interest taken by the paediatric profession in the elucidation of fundamentals in the physiology and pathology of the child in the early stages of its development. This first International Conference on ontogenetic physiology, which took place in an atmosphere of great friendship between scientists of different countries, has played an enormous part in consolidating forces and stimulating the further intensive development of this new and important field of knowledge.

The Eighth International Cancer Congress

68 flags, signifying participants from as many countries, flew at the main entrance of the imposing Moscow State University during the Eighth International Cancer Congress held in Moscow during July 22—27, 1962. Estimates of the number of persons attending the six-day meeting varied from five to nine thousand. The international congresses sponsored by the International Union

Against Cancer, are held every four years to give scientists from all countries an opportunity to discuss developments and exchange ideas on every aspect of the cancer problem. Nine hundred or more papers, as well as a number of scientific exhibits and films, were presented at the 1962 meeting.

The scientific sessions, some 78 in number, were held in six halls of the massive new buildings of the Moscow State University on Lenin Hills. The opening and closing ceremonies, however, were held in the Palace of Congresses in the Kremlin.

At the opening ceremony on July 22, Professor N. N. Blokhin, President of the Eighth International Cancer Congress, was installed by Professor V. R. Khanolkar, President of the International Union against Cancer. Welcoming speeches were also given by the Soviet Minister of Public Health, S. V. Kurashov and the President of the Russian Academy of Sciences, M. V. Keldish.

For many delegates this was a first visit to Moscow and there was considerable curiosity about accommodations, facilities, surroundings, and attitudes to be encountered. But both the hospitality and organization were certainly praiseworthy. Transportation — an obvious problem because of language difficulties and the six-mile distance to the University from the hotels in which most visitors stayed — was remarkably easy; accommodations were good, and the two formal entertainments of the Congress were excellent. As a whole, the Congress proved to those who attended an enjoyable and stimulating experience. In affording this opportunity to exchange scientific ideas on a world-wide basis, the Eighth International Cancer Congress achieved its purpose.

Space Science

The First International Space Science Symposium held during the second week of January, 1960, at Nice was attended by nearly 200 delegates from all over the world. In the foyer was arranged an exhibition of instruments for space research with a display of some experimental results.

The meeting at Nice was the first opportunity for a comprehensive presentation of the work being done in various parts of the world, and it provided time for the discussion. Much of the work had been carried out during the International Geophysical Year, but important results obtained since were also presented.

The hundred papers read at the conference were classified under seven headings.

In the opening session, on the Earth's atmosphere, Wexler discussed some of the doubts which have been current concerning the value of meteorological pictures made from satellites. A comprehensive paper by Poloskov presented the Russian results on the neutral gas and the ionization.

The great importance of the discovery of Van Allen belts of charged particles was reflected in the session on cosmic radiation and interplanatory gas. 18 papers were read with important contributions from Van Allen, Vernov, Dolginov, Kursanova and their collaborators. The Russian data agreed fairly well with Van Allen's.

The study of solar radiation is one of the most important branches of space science. The extensive and systematic work of the team at the Naval Research Laboratory, Washington, was reported at the symposium. The session on the Moon and the planets contained a number of papers, reflecting the stimulation of interests in these fields by the rapid development of space technology. Of special note is the serious consideration now being given to space biology. The only results reported in this session concerned the well-known Lunik III photography of the reverse side of the Moon.

17-й Международный астронавтический конгресс

В 1964 году в Мадриде состоялся 17-й Международный астронавтический конгресс. Для участия в конгрессе в столицу Испании съехалось около тысячи делегатов почти из 40 стран мира. Только одна советская делегация насчитывала 35 специалистов. Ректор Ленинградского университета, профессор К. Я. Кондратьев выступил на конгрессе с докладом «Метеорологические исследования на пилотируемых космических кораблях». Речь в нем шла о возможных средствах для осуществления широкой программы метеорологических исследований. На заседаниях других секций конгресса широко обсуждались инженерные и технические проблемы полетов во вселенной.

Следующий конгресс решено было созвать в 1967 году в Белграде.

Симпозиум реаниматологов

Большой интерес у ученых разных стран вызвал симпозиум, проведенный в сентябре 1966 года в Москве Лабораторией экспериментальной физиологии по оживлению организма, которой руководит профессор В. А. Неговский. В симпозиуме приняли участие деятели медицины из Франции, ГДР, Польши, Венгрии, Болгарии, Югославии и других стран.

В ходе свободной дискуссии зарубежные ученые смогли познакомиться с работами своих советских коллег. Они присутствовали на опыте оживления после двухчасовой клинической смерти в лаборатории, руководимой профессором Неговским, посетили центр по оживлению, научно-исследовательские институты.

Среди гостей советских ученых был крупный французский исследователь профессор Анри Лабори. Его работы хорошо известны. При посещении Института хирургии имени В. А. Вишневского АМН СССР действительный член АМН А. А. Вишневский вручил ему памятную медаль.

Всесоюзный биохимический съезд и проблемы современной биологии

Первый Всесоюзный биохимический съезд, проходивший в Ленинграде с 25 по 31 января 1964 года, явился значительным событием в научной жизни нашей страны. На съезд из всех республик Советского Союза съехалось свыше 200 участников. Представленные на съезде доклады всесторонне отразили важнейшие

направления и успехи отечественной биохимии как в теоретической, так и в прикладных областях. Рефераты докладов съезда составили три тома.

В соответствии с целями съезда была составлена программа работы и установлена тематика пятнадцати симпозиумов и секционных заседаний при них. Большая группа симпозиумов была посвящена важнейшим теоретическим вопросам современной биохимии. Не меньшее место заняли симпозиумы, посвященные проблемам прикладной биохимии. На целом ряде заседаний симпозиумов, и в особенности на секционных заседаниях, было уделено большое внимание методическим вопросам.

На первом пленарном заседании съезда главным ученым секретарем АН СССР академиком Н. М. Сисакяном была прочитана лекция, в которой докладчик осветил основные задачи, стоящие перед отечественной биохимией. В дальнейшем вся научная работа съезда развернулась на 142 симпозиальных и секционных заседаниях.

Несомненно, центральной проблемой современной биохимии является проблема белка и нуклеиновых кислот. Эти вопросы затрагивались в том или ином аспекте, помимо специального симпозиума, также почти на всех других заседаниях съезда.

Обзор работы Первого Всесоюзного биохимического съезда позволяет сделать заключение, что съезд прошел успешно и оказал существенную помощь развитию советской биохимии. Во время работы съезда укрепились научные связи наших ученых с биохимиками социалистических стран, присутствовавших в качестве гостей на съезде.

Шестой Международный биохимический конгресс

В конце лета 1964 года в Нью-Йорке проходил VI Международный биохимический конгресс (МБК). 6000 ученых почти из всех стран мира, 2500 представленных работ, 400 зачитанных докладов (из них 20 — советских), 10 симпозиумов — таковы цифровые характеристики VI Международного биохимического конгресса.

Советская биохимическая наука была представлена на конгрессе академиками В. Энгельгардтом и А. Опариным, членами-корреспондентами АН СССР С. Севериным, Е. Крепсом и В. Кретовичем, действительными членами АМН СССР С. Мардашевым, В. Ореховичем и др.

Честь прочитать первую пленарную лекцию была предоставлена члену-корреспонденту АН СССР С. Е. Северину. Тема его лекции, традиционная для русской биохимической школы, — биохимические особенности мышечной активности.

Большой интерес вызвал доклад молодого советского биохимика В. Скулачева. Крупнейший американский биохимик лауреат Нобелевской премии Бриттен Чанс так отозвался об этом выступлении: «Володин доклад — сенсация». «Одним из самых ярких докладов на конгрессе» назвал президент конгресса Джон Эдсолл доклад молодых докторов наук биохимика Спирина и кристаллографа Киселева. Большой интерес и оживленные дискуссии вызвали и остальные доклады молодых советских ученых. Вообще,

как отмечалось всеми, участие многих молодых ученых — характерная черта VI МБК.

Здесь нельзя не сказать о ставшем теперь знаменитым молодом американском биохимике Маршале Ниренберге. Интересно, что известность пришла к нему в Москве в 1961 году на V МБК, где он сообщил о начале расшифровки кода наследственности. На VI МБК Ниренберг сообщил о новой своей блестящей работе — расшифровке триплетов генетического кода.

Накануне закрытия конгресса состоялась пресс-конференция советской делегации. Члены делегации рассказали журналистам о своих работах и ответили на многие вопросы.

Генеральная ассамблея Международного биохимического союза избрала в свой новый состав советских ученых А. Опарина и С. Мардашева.

PART IV

SCIENTIFIC REVIEW

Text 1

MODERN SCIENCE AND TECHNOLOGY

BY ROBERT COLBORN, CHIEF EDITOR AND THE EDITORS OF INTERNATIONAL SCIENCE AND TECHNOLOGY. PP. XIV + 746. D. VAN NOSTRAND CO. INC., PRINCETON, N. Y., TORONTO, NEW YORK AND LONDON. 1965. $ 22.50

This book, written mainly for professional scientists and engineers but comprehensible to the interested layman, aims to acquaint them with the latest discoveries and the state of the art in fields of science and technology other than their own. It consists of articles which originally appeared in the magazine «International Science and Technology». Although almost all the authors work in the United States, reference is made to workers in other countries.

The subject matter relates only to the understanding or controlling of the physical world and appears under six headings: physics and electronics; technology; chemistry; rocketry; space and astronomy; earth science and oceanography; mathematics and computers. Thus biology and medical or social sciences are excluded. Subjects have been chosen for their potential usefulness or development, rather than for the fact that they are well understood or widely used at present, and each article contains a summary and a section recommending further reading. In general, the style is refreshingly different from that in learned journals, yet it remains lucid. The book is profusely illustrated with diagrams, photographs and marginal sketches, as well as some colour plates.

The editor is to be congratulated on producing this excellent collection of articles on such diverse subjects.

The book is stimulating to read, and deserves a place in any library used by those with an interest in science.

(Endeavour, vol. XXV, No. 94, January 1966, p. 51).

Exercises

1. Give an adequate translation of the sentences below paying special attention to the parts in italics.

1. This book *is written mainly for professional scientists.*
2. The book *aims to acquaint* the reader *with* the latest discoveries in fields of science and technology.
3. This article *originally appeared* in the magazine "International Science and Technology".
4. *Reference is made to* workers in other countries.
5. *The subject matter appears under* six headings.
6. Subjects have been chosen *for their potential usefulness or development.*
7. In general the style is *refreshingly different from* that in learned journals.
8. *The editor is to be congratulated on* producing this excellent collection of articles on such diverse subjects.
9. The book deserves a place in any library used by *those with an interest in science.*

2. Substitute the words given in brackets changing the article where necessary.

A

Mind: no article before nouns expressing speciality and the like used in the plural and the definite article before those in the singular.

Example: The book is written for professional scientists. (professional scientist).
The book is written for the professional scientist.

(engineers, engineer, interested layman, interested laymen, teachers, research worker, senior university student, senior undergraduates, postgraduate).

B

Mind: no article before the names of the countries, but the definite article if these include such nouns as *states*, *union*, *kingdom*, *republic*, etc.

Example: All the authors work in America. (United States).

All the authors work in the United States.

(Great Britain, United Kingdom, England, Soviet Union, Japan, Germany).

C

Mind: the definite article before the nouns *journal* and *magazine* when the name of the journal or magazine follows or precedes the noun.

Example: This article originally appeared in a scientific journal. (magazine "International Science and Technology").
This article originally appeared in the magazine, "International Science and Technology".

(review journal, "Geological Magazine", journal "Physical Review", technical journal, "Economic Journal", learned journal, magazine "Encounter", weekly newsmagazine "Time", magazine "Books and Bookmen").

D

Mind: no article before the noun in the plural and the indefinite article before that in the singular after such verbs as *contain* and *consist of*.

Example: Each article contains a summary. (large amounts of useful information).
Each article contains large amounts of useful information.

(section for further reading, set of references, the book, detailed methods of preparation, consists of, separate articles, 18 chapters, contains, up-to-date data).

3. Give the plural of the following sentences. Mind: no article after *such* before the noun in the plural.

Example: Such a system is called ultra-stable.
Such systems are called ultra-stable.

1. Such a field of science has been neglected.
2. I never said such a thing.
3. Chapters 10—18 give consideration to such a mechanism.
4. The editor is to be congratulated on such an excellent collection of articles.

4. **Give the singular of the following sentences. Mind: the indefinite article after *such*.**

E x a m p l e: Such subjects were not included.
Such a subject was not included.

1. Such articles contain a great deal of useful information.
2. Such summaries give a careful account of the results obtained.
3. Such sections recommend further reading.
4. Such books are addressed to undergraduate students.

5. **Insert articles where necessary.**

... book under review presents ... collection of ... articles on ... diverse subjects. Almost all ... authors of ... articles work in ... United States of ... America. They are ... specialists in ... different fields of ... science and ... technology. ... book is addressed both to ... professional scientists and ... interested layman. ... subject matter of ... book consists of ... two parts devoted to ... physics and ... electronics. Such ... subjects as ... biophysics and ... space medicine have been excluded. The book will be noted with interest by those taking ... interest in ... science.

6. **Substitute the words given in brackets.**

A

Mind the preposition *with* after the verb *to acquaint*. Remember the word-combinations with this verb.

E x a m p l e: The book acquaints us with the latest discoveries in the field of physiology. (the journal).
The journal acquaints us with the latest discoveries in the field of physiology.

(the lecture, the paper, the article, the reader, the latest developments, the recent achievements, the aims and achievements of space science).

B

Mind the preposition *of* after the verb *to consist* in the following word-combinations.

E x a m p l e: The book consists of 14 chapters. (articles).
The book consists of 14 articles.

(the volume, contributions, the journal, essays, 2 parts, section).

C

Mind the preposition *to* in the word-combinations *to make reference to* or *reference is made to.*

Example: Reference is made to workers in other countries. (researchers).
Reference is made to researches in other countries.

(dictionaries, sources of more detailed treatment, workers in other fields of science, articles in various journals, authors in many fields, review journals).

D

Mind the prepositions after the verb *to work*: *in*+some place, some country; field of science; at+some subject, training institution.

Example: Dr. Ashbey is working in the United States. (a new invention).
Dr. Ashbey is working at a new invention.

(the field of biology, the University, Latin and Greek, America, school, Great Britain, an office, the wide field of physiology, his thesis).

E

Mind the prepositions *on* + subject and *by* + writer, author, etc. in the following word-combinations.

Example: There are critical reviews on two new areas of research (F. Dickens).
There are critical reviews by F. Dickens.

(some 30 contributors, the structure of enzymes, chapters, 20 experts, articles, diverse subjects, lectures, different workers, computer design, research).

F

Mind the preposition *in* in *to take interest in* and *to be interested in.*

Example: Dr. Brown takes a great interest in politics. (science).
Dr. Brown takes a great interest in science.

(the topic of ageing, physics, is interested, senior undergraduates, results, methods, junior researchers, take interest).

G

Mind the preposition *on* in *to congratulate on.*

Example: I congratulate you on passing the examination. (writing this article).
I congratulate you on writing this article.

(the publication of your book, defending the thesis, the success of your lecture, obtaining these data, producing this excellent collection of articles, the completion of your work).

H

Mind the prepositions *with* + something or *by* + somebody in the following sentences.

Example: The work is illustrated with diagrams. (experts).
The work is illustrated by experts.

(schemes, colour plates, photos, experts, done, micro-electrodes, specialists, written, carried on, new methods, post-graduates, used, senior university students).

7. Put questions to the words in italics minding the place of the prepositions.

Example: The book consists *of 10 chapters.*
How many chapters does the book consist of?

1. The book acquaints us *with the latest developments.*
2. The volume consists *of 8 essays.*
3. Dr. Priestley is working *at a new invention.*
4. Reference is made *to researchers in other countries.*
5. Dr. Brown takes a great interest *in chemistry.*
6. Students are interested *in results.*
7. My friends congratulated me *on obtaining these data.*
8. The book is written *by Dr. Smith.*
9. The article is written *for professional scientists.*
10. The work is carried on *by neurophysiologists.*
11. The work is carried on *with microelectrodes.*

8. Insert prepositions where necessary.

The article I am going to speak about originally appeared ... the "Proceedings of Leningrad University". It has been written ... a leading authority ... this field ... science. The article consists ... 4 sections. The purpose ... the article is to acquaint the reader ... the work carried on

and the data obtained ... one of the physical laboratories ... the University. Reference is made ... workers both ... this and other countries. As the article is ... the subject I am greatly interested ... I read it with pleasure. It will prove extremely interesting ... my colleagues who take interest ... experiments ... this kind. It is profusely illustrated ... diagrams, colour plates and tables. The author is to be congratulated ... the success of this excellent piece ... work.

9. Answer the following questions using the words given in brackets.

Example: What does the book begin with? (a short introductory chapter).
The book begins with a short introductory chapter.

1. What does your article begin with? (an introductory part, a few general remarks, a short introduction).
2. What is each subsection preceded by? (a brief theoretical introduction, some introductory notes, an introductory discussion).
3. What does the book introduce us to? (the work done in the Soviet Union, the new data in the field of quantum mechanics, the up-to-date procedure).
4. What does the book acquaint us with? (recent discoveries in science and technology, applications of new methods, experimental technique, the work done in the United States).

10. Insert the right word.

to introduce (to), to acquaint (with)

1. May I ... my friend to you, Professor?
2. I got ... with these facts several years ago.
3. The aim of my paper is to ... the reader with some new methods of investigation.
4. I have often heard of Professor A., but I am not ... with him.
5. It seems a mistake to ... the reader first to the out-of-date procedures.
6. Thus for the first time this new method was...

7. I have some ... with German but I do not speak the language well enough.
8. In his ... Professor Slater follows a historical approach.
9. Each subsection of my thesis is preceded by a brief theoretical...
10. When did you make his...?
11. The book is an excellent ... to the Soviet work in the field of theoretical physics.

11. Paraphrase the following sentences. Instead of the word in italics use *to acquaint* or *to introduce* or both if possible.

Example: The article *makes the reader familiar* with some new data.
The article acquaints the reader with some new data.

1. The paper *draws the reader's attenion* to the behaviour of the particles.
2. I am going *to give a preliminary account of* the work done in our laboratory.
3. I *am not familiar* with these facts.

12. Answer the following questions.

1. Is there an introductory part in your thesis (article, the book you are reading)?
2. What subjects are dealt with in the introduction of your thesis (article, book, the book we are speaking about)?
3. What problems does the book acquaint us with?
4. When and how were you first introduced to this subject?

13. Translate into English.

1. Вы знакомы с этой темой?
2. Я не знаком с д-ром Б. Познакомьте меня с ним.
3. Во вводной главе диссертации мы знакомимся с историей вопроса.
4. В следующих главах мы знакомимся с методом исследования, полученными данными и выводами, к которым пришел автор.

14. Paraphrase the following sentences, substituting *last or latest* for the words in italics.

1. We use the *most recent* methods of investigation.
2. The *final* pages are devoted to the references.

3. The *up-to-date* developments are also taken into account.
4. Mr. B. came *after all others.*
5. The *final* section is devoted to important present-day problems in plant pathology.

15. Use the word-combinations given below in sentences of your own.

Example: Have you heard the latest news?
That was the last news we ever heard of him.

1. The latest news, the last news.
2. The latest book, the last book.
3. The latest data, the last data.
4. The latest letter, the last letter.
5. The latest journal, the last journal.

16. Insert the right word: *last* or *latest*.

1. My aim is to acquaint the reader with the ... discoveries in our field of research.
2. The ... chapter of my thesis is devoted to the experimental technique.
3. The introductory discussion is concerned with the ... types of polymer forming reactions.
4. The summary is given at the ... two pages.
5. The second chapter deals with the ... models of the apparatus.
6. This is the ... model received by our laboratory.

17. Translate into English.

1. Моя последняя статья.
2. Последняя глава книги.
3. Последние методы исследования.
4. Последняя страница.

18. Translate into Russian.

1. A list of references.
2. Key references.
3. A complete set of references.
4. To make reference to somebody (or something).
5. A reference book (work).
6. A work of reference.

19. Answer the following questions using the words in brackets.

Example: What does the book provide the reader with? (a list of references).
The book provides the reader with a list of references.

1. What does the volume provide the reader with? (key references, a complete set of references).
2. Who is reference made to? (workers in other countries, authors from the USA, scientists working in other fields).
3. What will the book prove to be? (a reference book for senior undergraduates, a most reliable work of reference).
4. What can you say about the references of this book? (most extensive, complete, generous, adequate, inadequate, numerous).

20. Answer the following questions.

1. Did you (the author) provide your (his, her) paper with a list of references?
2. Who did you (the author) make reference to?
3. Is your (the author's) list of references complete (extensive, generous, adequate, inadequate, numerous)?
4. What kind of book do you consult if you need a piece of information?
5. What reference work do you usually consult?
6. Who is the author or the editor of this work of reference?

21. Complete the following sentences.

1. The title of the book I am reading is. . .
2. The heading of the chapter I am interested in is. . .
3. The headline of the newspaper article we discussed last time is. . .
4. The title of my friend's thesis is. . .
5. The title of my professor's work for Doctor's Degree is. . .

22. Insert the right word: *title, heading* or *headline*.

1. The . . . of my latest paper is "Computers and How to Use them".

2. The subject matter of the book appears under three. . .
3. What is the . . . of the book you are going to review?
4. What is the . . . of the section you are reading?
5. How will you translate the . . . of this newspaper article?
6. This . . . does not describe the book at all.

23. Substitute the words in brackets using *title, heading* or *headline.*

Example: The title of the book is "Brain". (chapter).
The heading of the chapter is "Brain".

("Children and Their Future", the newspaper article, the book, "Scientific Centers in England", the part of the book, the magazine article, "England", the magazine).

24. Answer the following questions.

1. What is the title of your paper (the book you have recently read)?
2. Under what headings does the subject matter appear?
3. What is the heading of the last section?
4. Does the title describe the subject?
5. What is the headline of the newspaper article you are going to tell us about?

25. Answer the following questions using the words given in brackets.

Example: What is the object of this book? (to acquaint the reader with the latest discoveries in technology).
The object of this book is to acquaint the reader with the latest discoveries in technology.

1. What is the object of this article? (to provide students with information about recent advances in biology, to give the reader some idea of the work done at our Institute).
2. What are the subjects of this book? (biology and medicine, electron emission and plasma physics, molecular compounds).
3. What is the book devoted to? (diverse aspects of physics, the understanding of physical world, the application of the theory to experimental work).

26. Use *subject* or *object* instead of their synonyms in the following sentences.

1. This is an excellent collection of articles on diverse *topics*.
2. The *aim* of my paper is to present the basic ideas of the theory in question.
3. The author treats a great variety of *themes*.
4. Other *topics* dealt with in this book are regularly reviewed in scientific journals.
5. The *purpose* of this volume is to analyse the character of the brain activity.
6. The volume is already out-of-date in many of the *themes* it deals with.

27. Insert the right word: *subject, object* or *subject matter*.

1. The ... of the book is of major importance.
2. Many articles of the volume deal with recent advances in the...
3. The ... of my thesis is arranged in the following way.
4. The ... of the paper is to give some idea about analogue computers.
5. The ... of the text-book falls into two sections.
6. The ... of my work is to investigate this particular problem.
7. I am engaged in one of the aspects of the broad ... of biochemistry.

28. Translate into English.

1. Тема моей диссертации.
2. Тема рецензируемой книги.
3. Излагаемый материал доклада.
4. Содержание книги.
5. Цель сообщения.
6. Я касаюсь (touch upon) различных аспектов темы.
7. Содержание статьи делится на две части.
8. Цель моего сообщения — рассказать о полученных нами результатах.
9. Предмет исследования.

29. Answer the following questions.

1. What subjects are dealt with in your thesis (paper, article, the book you are reading)?

2. What is the subject of your research?
3. What is the object of your investigation?
4. The subject of your investigation is of great importance, isn't it?
5. How is the subject matter of your thesis (paper, the book you are reading) arranged?

30. Answer the following questions using the words given in brackets.

Example: What does the volume consist of? (several articles by different authors).
The volume consists of several articles by different authors.

1. What does the book consist of? (various essays about famous writers, some articles on diverse subjects, eight papers by outstanding scientists).
2. What does the book contain? (a careful account of work done in our country, several articles by the late Professor B., 14 chapters by 20 experts, papers given at a symposium at Oxford University, some minor errors).

31. Put questions to the numerals in the following sentences.

Example: The book consists of 2 parts.
How many parts does the book consist of?

1. The book contains 32 electron micrographs.
2. The volume consists of 18 separate articles.
3. The journal contains 11 review articles.
4. Volumes I and II together contain 20 articles.

32. Use *to consist (of)* instead of *to contain* where possible.

1. The volume contains 18 articles.
2. The text contains a number of minor errors.
3. My article contains four parts.
4. The book contains a careful account of work done in the United States in this field of science.
5. The paper my professor is going to read contains a description of work carried on in our laboratory.
6. The last part of my thesis contains references to other workers in this special branch of physics.

33. **Answer the following questions.**

1. How many chapters does the book you are reading consist of?
2. Do the chapters contain any summary?
3. Does the book contain any original data?
4. Does it contain any errors?

34. **Translate into English.**

1. Моя диссертация состоит из двух частей.
2. В первой части содержится (первая часть содержит) подробное описание метода исследования.
3. Рецензируемый журнал состоит из трех разделов.
4. В каждой статье содержится (каждая статья содержит) много оригинальных данных.

35. **Answer the following questions.**

1. What is the title of the book under review?
2. Who edited the book?
3. Is the editor's name familiar to you? Is he a well-known editor?
4. Where and when was the book published?
5. Who is the book written for?
6. What is the purpose of the book?
7. As far as we can judge from the review, the book acquaints us with the latest discoveries in science and technology. But according to the date of its publication some of the discoveries are no longer up-to-date, are they?
8. Does the book contain any introductory part?
9. What subjects have been excluded?
10. The reviewer ennumerates the subjects dealt with in the book. What are the last two included?
11. Which of these subjects are you well acquainted with?
12. What subjects would you be introduced to, if you read the book?
13. Where did the articles originally appear?
14. Are you acquainted with the magazine?
15. In what country do almost all the contributors live and work?
16. Can you tell us how many articles the book consists of?

17. What can you say about the references made in the book? Are they complete, numerous, adequate or what?
18. Who is reference made to?
19. Under how many headings does the subject matter appear?
20. It is praiseworthy that each article contains a summary and a section recommending further reading, isn't it?
21. How is the book illustrated?
22. The reviewer congratulates the editor on producing this excellent collection of articles. Would you like to join the reviewer?
23. Would you like to read this book?
24. Do you think it'll prove interesting and useful to you?

36. Translate into English.

Рецензируемый сборник «Якутия в XVII веке» появился в 1953 году в издательстве АН СССР под редакцией С. В. Бахрушина и С. А. Токарева. Цель книги — познакомить читателя с историей Якутии. Книга написана для специалистов-историков и для неспециалистов, интересующихся этим вопросом. Авторами статей сборника являются выдающийся специалист по истории Сибири, ныне покойный, член-корреспондент АН СССР С. В. Бахрушин, доктор исторических наук С. А. Токарев, профессор Н. Н. Степанов и молодые специалисты Р. Г. Сафронов и И. С. Гурвич. Все авторы из Советского Союза. В книге содержатся ссылки на работы других ученых.

Сборник состоит из шести глав.

Первая глава под заголовком «История открытия Якутии русскими в XVII веке» написана С. В. Бахрушиным.

Во второй главе содержится подробное описание общественного строя (social system) якутов и их культуры. Автор главы С. А. Токарев. Последний параграф об общественном строе тунгусов написан Н. Н. Степановым.

Тема третьей главы — управление (the government) Якутии.

Глава четвертая знакомит нас с вопросами борьбы коренного населения (the natives) Якутии с царизмом. Она написана И. С. Гурвичем.

В пятой главе содержатся очерки (essays) о различных категориях русского населения Сибири в XVII веке.

Последняя, шестая глава, авторами которой являются

С. В. Бахрушин и С. А. Токарев, посвящена теме влияния русской нации на развитие якутского народа.

Книга написана с хорошим знанием материала, ясным стилем.

Авторов можно поздравить с успехом их сборника.

Text 2

A HISTORY OF THE MODERN BRITISH CHEMICAL INDUSTRY

BY D. W. HARDIE AND J. DAVIDSON PRATT. PP. XI + 380. PERGAMON PRESS, OXFORD. 1966. 21S. NET

This book is timely and will be useful to students and those working in the chemical industry. However, it suffers from some defects which detract from its value. The first, for which the authors are not to blame, is careless proof-reading, so that far too many names have been misspelt which is unfortunate in a book of this kind. In the second place, there are some minor mistakes of fact: for example, the Bergius process was not worked in Germany during the Great War but was developed during the mid 1920s; Bosch, not Haber, developed the ammonia synthesis in the works of Badische Anilin between 1909 and 1913. More serious is the omission of fertilizer manufacture, which represents one of the largest branches of the chemical industry; the brief reference to its nineteenth-century background is also inadequate. The review of man-made fibres (especially nylon) is much too short, and in no way reflects their role in the British textile industry.

In general, however, the detailed account of the modern chemical industry in Chapter III is useful, and the summarized particulars of almost 200 companies are an interesting and valuable source of ready information.

L. F. Haber

(Endeavour, vol. XXVI, No. 97, January 1967).

Exercises

1. Give an adequate translation of the sentences below paying special attention to the parts in italics.

1. This book will be *useful to those working* in the chemical industry.
2. The book *suffers from* some defects which detract from its value.
3. The first, for which the authors *are not to blame*, is *careless proofreading*.
4. Far too many names have been misspelt which *is unfortunate* in a book of this kind.
5. In the second place, there are some minor *mistakes of fact*.
6. Bosch *developed* the ammonia synthesis in the works of Badische Anilin.
7. *The brief reference to* the nineteenth-century *background* is also *inadequate*.
8. The review of man-made fibres is much too short, and *in no way* reflects their role in the British textile industry.
9. In general, however, *the detailed account* of the modern chemical industry is useful.
10. *The summarized particulars* of almost 200 companies are *an interesting and valuable source of ready information*.

2. Paraphrase the following sentences. Mind: no article before the noun followed by a numeral.

Example: The first chapter discusses the thermodynamic principles.
Chapter one discusses the thermodynamic principles.

1. The second chapter deals with the methods.
2. Such factors are incorporated in the third chapter.
3. The detailed account of the modern chemical industry in the fifth chapter is useful.
4. The seventh article of the volume is concerned with the basic problems of adaptive behaviour.
5. The eighth paragraph gives consideration to the refinements of such a mechanism.

6. In the ninth chapter the author gives an accurate description of co-enzymes.
7. The tenth paper is unfortunately a very short one.

3. Substitute the words given in brackets.

A

Mind: no article with *information* in the following sentences.

Example: These particulars are an interesting and valuable source of ready information. (the book).
The book is an interesting and valuable source of ready information.

(contains, an extremely large amount, useful information, the chapter, provides, specialized information, detailed).

B

Mind the definite article with *information* in the following sentences.

Example: The information is thoroughly up to date. (extremely useful).
The information is extremely useful.

(detailed, specialized, out-of-date, not important, valuable).

4. Paraphrase the following sentences. Mind the articles with *information*.

Example: The information given by the author is vast and useful.
The author provides a large amount of useful information.

1. The information given in the book is vast and detailed.
2. The information given in the handbook is vast and specialized.
3. The information given in the article is vast and interesting.
4. The information given in the text is vast and thoroughly up-to-date.
5. The information given by the author is vast and valuable.

5. Insert the definite article where necessary.

1. ... information is thoroughly up-to-date.
2. Other chapters provide a wealth of ... specialized information.
3. The book aims to provide students with ... information about the fine structure of various cells.
4. The handbook succeeds in compressing a vast amount of ... information.
5. The book contains an extremely large amount of ... useful information.
6. The summarized particulars of almost 200 companies are an interesting and valuable source of ... ready information.
7. ... information given by the author is extremely useful.

6. Change the following sentences. Mind the definite article with *early* + year, *late* + year, *mid* + year.

Example: The book appeared in 1960. (mid 1960s)
The book appeared in the mid 1960s.

1. The process was developed during 1920. (mid 1920s).
2. This contribution was made in 1940. (late 1940s).
3. Over 80 per cent of the references date from before 1950. (early 1950s).
4. This phenomenon was discovered in 1930. (mid 1930s).

7. Paraphrase the following sentences naming the date approximately.

Example: The book was published in 1955 (1951, 1958).
The book was published in the mid 1950s (in the early 1950s, in the late 1950s).

1. The first edition appeared in 1927.
2. The article was edited in 1933.
3. The author wrote his first book in 1945.
4. The process was worked out in 1957.
5. The law was discovered in 1961.

8. Answer the following questions. Use the words in brackets in combination with *one of, none of, many of, much of, few of, some of* minding the definite article after them.

Example: What subjects are dealt with in the book? (important conditions).
Some of the important conditions are dealt with in the book.

1. What has been incorporated in better form? (material).
2. What has been solved? (problems).
3. What is no longer of vital interest? (details).
4. What does the author discuss? (fundamental theoretical issues).
5. What has been omitted in the paper? (types of reactions).

9. Change the following sentences. Mind the definite article after *one of*, *some of*, etc.

Example: This is one central feature of the book.
This is one of the central features of the book.

1. Most articles are authoritative.
2. Some problems have been solved.
3. Many papers describe the work done in this field.
4. One article has previously appeared in English.
5. Some introductions to the topics are rather brief.
6. Much material in this book has already been published.
7. The volume is already out-of-date in many subjects with which it deals.

10. Respond to the following statements. Use *one of*, *some of*, *many of*, etc. in your sentences.

Example: The book has many features which deserve favourable comment.
One of the features is especially pleasing.

1. There are many research workers in our laboratory. (to be engaged in experimental work).
2. Three handbooks on ageing individuals have recently appeared. (to deal with the psychological and biological problems of the ageing individual).
3. The volume deals with many subjects. (to be already out-of-date).
4. The volume contains eight articles. (to have already been published in journals).
5. The author provides instructions to the topics. (to be brief).

11. Insert articles where necessary.

This book is one of ... "Frontiers in Physics" series. There are a few errors in it, ... most serious one is ... description of the Berigius process, which was worked in ... Germany in ... mid 1920s. ... chapter V gives ... detailed

account of ... modern chemical industry. This and some ... particulars about almost 200 companies are ... interesting source of ... ready information.

12. Substitute the words given in brackets minding the preposition *to* in *to be useful, important, interesting, valuable to somebody.*

Example: This book is useful to students. (those working in the chemical industry).
This book is useful to those working in the chemical industry.

(professional scientists, will prove, those working in the wide field of biology, interesting, is, the general scientist reader, important, research workers, those approaching the problem for the first time, professional physicist, valuable, those studying the subject, those familiar with the subject, researchers).

13. Put questions to the words in italics.

Example: This book is useful *to students.*
Who is the book useful to?

1. Much of the material could be very useful *to the senior university student.*
2. This book will be useful *to most polymer chemists.*
3. This article will be valuable *to advanced students of biochemistry.*
4. The volume will be of considerable value *to research workers concerned with nitrogen chemistry in general.*
5. The paper is of first hand interest *to gerontologists.*
6. The chapters on these subjects will be of particular interest *to those who are responsible for the management of large colonies of monkeys.*

14. Paraphrase the following sentences.

Example: Those not working in this field may find the book interesting.
The book may prove interesting to those not working in this field.

1. Most polymer chemists will find the book useful.
2. Those who are looking for the appraisal of the present status of enzymology will find the volume extremely useful.

3. The young specialist may find other material useful.
4. The senior university student may find much of the material very useful.
5. Most biologists will find the discussion extremely interesting.
6. Most physicists may find the section on masers valuable.

15. Substitute the words given in brackets. Mind the preposition *for* in *somebody is to blame for something.*

Example: The author is to blame for these minor errors. (the editor).

The editor is to blame for these minor errors.

(the publisher, not, these mistakes, the authors, are to blame, careless proofreading, not, the printers).

16. Answer the following questions using the words given in brackets.

Example: Who is to blame for these defects? (the authors).

The authors are to blame for these defects.

1. Who is to blame for the minor errors? (the editor, the publishers, the printers).
2. What is the author to blame for? (the inadequate references, the rather brief review of some facts, the out-of-date information).
3. What is the corrector to blame for? (careless proofreading, a large amount of misprints).

17. Answer the following questions.

1. Who is to blame for careless proofreading?
2. Who is to blame for mistakes of facts?
3. Who is to blame for erroneous information in the book?
4. Who is to blame for a large amount of misprints in the text?
5. What defects in the book is the author to blame for?
6. What defects in the book are the proofreaders to blame for?
7. What defects in the book is the editor to blame for?

18. Substitute the words given in brackets. Mind the preposition *from* in *to suffer from*.

Example: The book suffers from some defects. (the text-book).
The text-book suffers from some defects.

(careless proofreading, misspelling, the volume, some minor mistakes of fact, your thesis, the inadequate references, the omission of some facts).

19. Paraphrase the following sentences.

Example: One of the drawbacks of the book is careless proofreading.
The book suffers from careless proofreading.

1. One of the drawbacks of the article is the misspelling of some names.
2. One of the shortcomings of the thesis are the inadequate references.
3. The limitations of the volume are some mistakes of facts.
4. The disadvantage of the paper is the brief review of man-made fibres.
5. Another disadvantage of the handbook is the omission of some factual material.

20. Insert prepositions.

The book ... review will prove useful ... most ... the workers ... the chemical industry. However, it suffers ... a number ... defects. One ... them is careless proofreading, but the authors are not to blame ... this. ... general, however, the book provides a wealth ... detailed information ... the particulars ... almost 200 companies ... the modern chemical industry.

21. Translate into Russian.

1. A branch of science.
2. A branch of industry.
3. A branch of the subject.
4. A field of science.
5. A field of research.
6. In the field of art (politics, literature, physics, biology, etc.).
7. An area of research.
8. A branch department.

22. **Translate the following sentences and substitute *field* by *area* where possible.**

1. The book is an excellent introduction to the entire field.
2. The field to be covered is very extensive indeed.
3. The book consists of 18 separate articles by different authors in the field of electrophysiology.
4. The purpose of the volume is to provide research workers in different fields of science with information about recent developments.
5. The importance of lipids is now recognized in many biological fields.
6. This is outside his field of research.

23. **Insert the right word: *field* or *branch*.**

1. Botany is a . . . of knowledge.
2. Those not working in the analogue . . . may find the book interesting.
3. The appearance of a laboratory handbook will be noted with interest by workers in all . . . of this subject.
4. For specialists in other . . . some of the introductions to the topics are rather brief.
5. The importance of this subject is now recognized in many biological. . .
6. English is a . . . of the Germanic family of languages.
7. This manufacture represents one of the largest . . . of the chemical industry.
8. Useful information is given by a number of leading authorities in the wide . . . of enzymology.

24. **Substitute the words given in brackets paying attention to word-combinations with *branch, field* and *area*.**

A

Example: The book is an excellent introduction to the entire field. (survey).
The survey is an excellent introduction to the entire field.

(neighbouring, analogue, the volume, specific, borderline, the wide field of enzymology, certain branches of science, the areas needing more research).

B

E x a m p l e: That is outside my field. (botany).
Botany is outside my field.

(electrophysiology, this method, this research, within, this problem. these data, plasma physics, outside, computers).

C

E x a m p l e: The field to be covered is very extensive. (area).
The area to be covered is very extensive.

(broad, wide, field, interesting, useful, important, quite new).

D

E x a m p l e: It is a slight disappointment that neighbouring fields such as cytology and genetics have been somewhat neglected. (atomic and electronic collisions).
It is a slight disappointment that neighbouring fields such as atomic and electronic collisions have been somewhat neglected.

(plasma and solid physics, psychology and psychiatry, natural radiation and space medicine, alkene and polymer chemistry, nuclear and surface physics, enzymology and biochemistry).

25. Paraphrase the following sentences.

E x a m p l e: The importance of this subject is now recognized in the biological field.
The importance of this subject is now recognized in the field of biology.

1. The author is working in the physiological field.
2. The method will be useful for researchers working in the electrophysiological field.
3. Dr. Smith is knowledgeable in the mathematical field.
4. Useful information is given by a number of leading authorities in the enzymological field.
5. Specialists in the electronical field will find the book interesting.

26. Answer the following questions using the words in brackets.

Example: What branch of knowledge is the book devoted to? (botany).
Botany is the branch of knowledge the book is devoted to.

1. What branch of knowledge is the volume devoted to? (physiology, mathematics, biology).
2. Where does the author work? (a branch department, a branch research institute, a branch computing centre).
3. Who will find the book useful? (workers in the field of biology, workers in different branches of science, workers in the field of electrophysiology).
4. What is the critical review on? (two new areas of research, areas needing more research, the broad area of lipid research).
5. In what fields has the progress been recently made? (many biological, other, neighbouring, borderline, different, specific).

27. Answer the following questions.

1. What branch of science are you interested in?
2. In what field of science do you work?
3. What area of research is your friend engaged in?
4. What are the neighbouring fields of your research?
5. What borderline fields of science do you have to study?

28. Translate into English.

A

1. Отрасль науки.
2. Область исследования.
3. В области физики.
4. В различных областях науки.
5. Отрасль промышленности.
6. Филиал почтового отделения.
7. Филиал кафедры иностранных языков.
8. Филиал научно-исследовательского института.
9. Филиал вычислительного центра.

B

10. Химия — отрасль знания.
11. Это — одна из крупнейших отраслей промышленности.

12. Мы сделали огромные шаги в отдельных отраслях науки.
13. Появление этой книги будет встречено с интересом работниками во всех отраслях химической промышленности.
14. Испанский язык — ветвь романской семьи языков.
15. Я работаю в Ленинградском филиале вычислительного центра.

29. **Give all possible variants and translate them into Russian.**

A

The author	gives	a	detailed	account of...
The book	presents		concise	description of...
	provides		careful	
	contains		comprehensive	
	avoids		authoritative	
			introductory	
			basic	
			accurate	
			scientific	

B

The account of	the	topic	is	useful
The description of		research work		elegant
		experimental procedure		important
		experimental results		praiseworthy
				one of the central features of the book

30. Substitute the words given in brackets. Pay attention to the word-combinations with *account* and *description*.

Example: The detailed account of the modern chemical industry in Chapter III is useful. (description).
The detailed description of the modern chemical industry in Chapter III is useful.

(is praiseworthy, account, the last chapter, the experimental procedure, is very good, the critical experimental results, description, accurate, is important, concise, careful, authoritative, introductory, computer, techniques, much of the work, basic).

31. Paraphrase the following sentences making use of the expression *an account is given (presented, provided)*.

Example: Basic physical principles are explained.
An account is given of basic physical principles.

1. All the constructions are clearly explained.
2. The method is described.
3. The author describes and discusses the recent developments in physics.
4. The author describes the achievements and aims of space science.
5. The article describes the nature of conditions such as cardiovascular and dental diseases.

32. Answer the following questions using the words given in brackets.

Example: What is given a detailed account of? (the author's work).
A detailed account is given of the author's work.

1. What subject is given a careful account of? (computer logic, the preparation of this substance, much of this work).
2. Where is a concise account of the theory presented? (the last chapter, the paper by Dr. Brown, the text-book).
3. What kind of description is this? (useful, praiseworthy, important, accurate, careful).

33. Answer the following questions.

1. What problems are given a detailed account of in your thesis (your paper, the book you are reading)?
2. Which part of your thesis (paper, the book you are reading) contains an introductory account of the theory?
3. Which section of your thesis (article, the book you are reading) presents a detailed account of the experimental results?
4. In whose work can you find a comprehensive and authoritative account of the problem you are interested in?
5. Are there any topics in your work you avoid giving a basic scientific account of? What are they, if any?

34. Translate into English.

Example: В книге дается подробное описание метода исследования.
The book presents (gives, provides) a detailed account of the method of the investigation.

1. В третьей главе дается тщательное описание эксперимента.
2. В первой главе содержится вводное описание вопросов теории.
3. В последней главе приводится краткое описание экспериментальных результатов.
4. В разделе «Обсуждение» дается всестороннее описание основных путей работы.
5. В статье содержится авторитетное описание истории исследования.
6. В докладе не приводится подробного описания отдельных отраслей современной химической промышленности.

35. Translate into Russian paying attention to the words in italics.

1. The second part of the article covers the subject *in detail.*
2. Practical *details* are mentioned.

3. The *detailed* study of this subject is useful.
4. This part is too *detailed* for most readers.

36. Substitute the words given in brackets paying attention to the word-combinations with *detail*.

A

Example: The subject is dealt with in detail. (covered).
The subject is covered in detail.

(discussed, data, given, calculations, performed, procedure, considered).

B

Example: Practical details are mentioned. (given).
Practical details are given.

(collected, mechanical, provided, component, obtained, presented, illustrative).

C

Example: The detailed study of the subject is useful. (theoretical treatment).
The detailed theoretical treatment of the subject is useful.

(is necessary, information, account of the modern chemical industry, description of the experimental results, important, methods of preparation.

37. Translate into Russian paying attention to the words in italics.

1. This book will be *valuable* to advanced students.
2. This book will be *invaluable* to advanced students.
3. This book will be *of value* to advanced students.

38. Substitute the words given in brackets paying attention to the word-combinations with *value, valuable, invaluable*.

A

Example: The book is a valuable contribution to phylological literature. (on these important aspects of research work).

The book is a valuable contribution on these important aspects of research work.

(makes, to genetical literature, the author, the article, addition to the libraries of plant physiologists).

B

Example: The book will be invaluable to advanced students of biochemistry. (research workers concerned with nitrogen chemistry).

The book will be invaluable to research workers concerned with nitrogen chemistry.

(those working in the plant sciences, the article, the volume, of value, theoretical physicists, all workers in the field of physiology, for those approaching the subject for the first time).

39. Construct sentences of your own using the word-combinations in italics.

Examples: 1) The book will be *of particular value* for physicists.

Of particular value is the method developed by Dr. P.

2) The results of the experiments are *of practical value.*

This method seems to be of little practical value.

1. The author's contribution is *of permanent value.*
2. The article will be *of considerable value.*
3. The analysis is *of practical value.*
4. The information is *of particular value.*

40. Translate into Russian paying attention to the word *background.*

1. The book is addressed to the general scientific reader with engineering and mathematical background.
2. The references provide an excellent background for understanding this phenomenon.
3. The section contains background material on the basic theory.

4. The reader needs a good background knowledge of the topic.
5. The brief references to the nineteenth-century background of the chemical industry is inadequate.

41. Translate into Russian.

1. To give (to provide) a critical review of the subject.
2. To review the subject.
3. An inclusive review of the problem.
4. A review journal.
5. The reviewed article.
6. The book under review.
7. A review chapter.
8. The reviewer.

42. Paraphrase the following sentences.

A

Example: The book provides an excellent review of performance and accomplishment.
Performance and accomplishment are excellently reviewed in the book.

1. There are critical reviews on two new areas of research.
2. The volume gives a critical review of the subject.
3. The articles provide a short review of advances made in the field.
4. The book gives an excellent review of the topic.
5. The journal provides an excessive review of the subject.

B

Example: The reviewed book is an interesting and valuable source of ready information.
The book under review is an interesting and valuable source of ready information.

6. The reviewed book is timely and will be useful to students and those working in the chemical industry.
7. The reviewed book suffers from some defects.
8. The reviewed article is authoritative and of a very high standard.
9. The reviewed article contains a summary and a section recommending further reading.

10. The reviewed article originally appeared in the magazine "Endeavour".
11. The reviewed articles represent papers given at the Agricultural University.
12. The reviewed articles cover the theory of electronic and quantummechanical aspects of protein.

43. Substitute the words given in brackets paying attention to the word-combinations with *review*.

Example: The review of man-made fibres is short. (inadequate).
The review of man-made fibres is inadequate.

(of the subject, excellent, useful, valuable, of solid state physics and biology, complete, of particular aspects of the topic, of the regulation of enzymic reactions, of two new areas of research, inclusive).

44. Answer the following questions.

1. Who is the reviewer of the above article?
2. What is the work the reviewer does?
3. Have you ever acted as a reviewer?
4. What sort of journals are called "review journals"?
5. What review journals do you know?
6. What sort of chapters (articles) are called "review chapters (articles)"?
7. Have you got to write a review chapter for your thesis?
8. What adjectives can be used with the noun "review"?

45. Explain the meaning of *represent* and *present*.

Examples: 1) Phonetic signs represent sounds.
Phonetic signs symbolize (correspond, stand for) sounds.
2) The essay presents the author's ideas.
The essay brings forward (shows, exhibits, reveals) the author's ideas.

1. The articles represent work done in Japan.
2. The book is well presented, with useful bibliography to each chapter.

3. The articles represent the papers given in Oxford University.
4. These articles present reliable data.
5. Fertilizer manufacture represents one of the largest branches of the chemical industry.

46. Use *present* or *represent* instead of the words in italics.

1. The author emphasizes the advantages *afforded* by enzymes.
2. The second chapter deals with methods of *explaining* the chemical composition of various systems.
3. The work *gives* very valuable results.
4. The volume *contains* articles which describe work done in this field.

47. Translate into English.

1. Эта статья представляет интересные данные.
2. Эта статья представляет собой интересную трактовку данной проблемы.
3. Эта книга представляет интересный обзор данной темы.
4. Эта книга представляет собой ценный вклад в науку.
5. Этот журнал представляет ряд статей на данную тему.
6. Этот том представляет собой сборник статей на данную тему.

48. Substitute the words given in brackets paying attention to the word-combinations with *it is unfortunate*.

Example: It is unfortunate that far too many names have been misspelt. (there are some minor mistakes of fact).
It is unfortunate that there are some minor mistakes of fact.

(the brief references are also inadequate, the review of manmade fibres is much too short, proofreading was done without due care, some important facts were ommitted, the volume is already out of date, the method of the investigation is not presented, this lecture is a short one).

49. Add introductory phrases *it is fortunate, fortunately, it is praiseworthy* or *it is unfortunate, unfortunately* to the sentences below according to their meaning.

Examples: 1) Much of the material is already out of date.
It is unfortunate that much of the material is already out of date.
2) It has not taken too long for the publication of the papers presented.
Fortunately, it has not taken too long for the publication of the papers presented.

1. Much of the material presented is extremely up-to-date.
2. There are some mistakes of fact.
3. Reference has been made up to this year.
4. Proofreading has been done without due care.
5. Much attention is given to describing the methods of the investigation.
6. The reader is introduced to the old-time procedure.
7. The introductory part is much too short.
8. Some names are misspelt.
9. The author succeeded in providing a large amount of useful information.
10. The illustrations are well chosen and excellently reproduced.

50. Substitute the words given in brackets. Practise introductory phrases with the meaning of concession: *in general, however; in spite of these defects (drawbacks, shortcomings); despite these defects,* etc.

Example: In general, however, the book will prove useful to students. (despite these drawbacks).
Despite these drawbacks the book will prove useful to students.

(to those working in the chemical industry, teachers and professional scientists, it is a useful book, in spite of these drawbacks, shortcomings, defects, the book provides a large amount of useful information, in general however, the book is timely and useful to students).

51. Disagree to the statements below using some of the introductory phrases: ***I am afraid you are wrong, I am afraid you are mistaken, just the reverse, on the contrary.***

Example: As far as I could gather from the text, the book has no defects.
I am afraid you are wrong, the book suffers from a number of defects.
I am afraid you are mistaken, there are a lot of drawbacks in the book.
Just the reverse, there are many shortcomings in the book.

1. As far as I could gather from the review, proofreading was done with due care.
2. Judging by the review, there are no mistakes of fact.
3. As far as the review goes, the numerous references are always adequate.
4. According to the reviewer, there is a detailed information about nylon.
5. As far as I could get from the review, the book is not timely.

52. Answer the following questions.

1. What is the title of the reviewed book?
2. Who are the authors of the book under review?
3. What is the name of the reviewer?
4. When and where was the book published?
5. How much does it cost?
6. In what volume and number of what journal was the review published?
7. Who will the book prove useful to, according to the reviewer?
8. What defects does it suffer from?
9. Are the authors to blame for careless proofreading? Who are to blame for this?
10. What has been the result of careless proofreading?
11. Give some examples of minor mistakes of fact.
12. What mistakes can be considered as more serious ones?
13. Which chapter is to be considered especially useful? What is its subject?
14. Why else is the book to be considered an interesting and valuable source of ready information.?

53. Review a book (an article) you have recently read (see the list of questions and the plan of a review in the Supplement).

SUPPLEMENT

List of Questions

A

1. What book have you recently read?
2. Who is the author of the book?
3. Who edited the book?
4. Where and when was it published?
5. Is it its first edition? What edition is it?
6. What does the subject of investigation include?
7. What do different chapters (or articles) deal with?
8. How many chapters (articles) does the book consist of?
9. What is given much (little) attention to?
10. Are there any drawbacks in the book? What are they, if there are any?
11. How is the material illustrated?
12. What can you say about the style of the book?
13. Who is the book addressed to?
14. What is of particular interest in it?
15. What does the book begin (end) with?
16. What is the purpose of the book?
17. Who do you think this book will prove useful for?
18. Who is the reviewer?

B

1. What is the subject of your thesis?
2. Have you already published any articles?
3. Where and when did you publish them?
4. What are the titles of your published papers?
5. What problems do you deal with in those papers?
6. What are you going to prove in the course of your research?
7. Is there much or little material published on the subject of your investigation?
8. Who are your published papers addressed to?
9. What do you give much (little) attention to in your published papers?
10. What is of particular interest in your papers?
11. What have you succeeded in showing?
12. What did you fail to show?
13. How many parts does your paper consist of?
14. Are there any shortcomings in your paper?

15. How did you begin (finish) your paper?
16. What is the purpose of your paper?
17. What do you treat in your introductory part?
18. What do you say in conclusion?

Plan of a Scientific Review

(to be used in discussing research work or reviewing any scientific publication)

1. The book (volume, handbook, text-book, article, essay) under review is....
   The reviewed book (volume, etc.) is...
2. The articles represent papers (reports) given at the conference.
3. The author (editor, publisher) of the book is...
   The contributor of the journal (magazine) is...
4. The book was published (edited) in 1966.
   The article originally appeared in Russia (in Russian; in a journal).
5. The author is a well-known (distinguished, outstanding) scientist in the field of...
   The author is a Nobel prize winner.
6. The title (name) of the book is...
   The heading of the chapter (section, part) is...
   The headline (title, name, heading) of the newspaper article is...
7. The book consists of 10 chapters (sections, parts, articles, contributions).
   The book contains (includes, falls into) 3 parts.
8. The book contains a summary (a treatment of..., a list of references, a large amount of useful information).
9. The book is addressed to scientific workers (professional scientists, interested laymen, undergaduates, postgraduates, those working in the field of..., those studying the problems of..., those familiar with the field of..., those approaching the problem of...).
   The book is written for researchers.
10. Reference is made to workers (works).
11. The subject of the book is... (includes..., is reviewed, is covered).
    The topic (theme) of the book is...
    The topic of the research (investigation, thesis) is...

12. The subject matter of the book relates to (includes, is devoted to)...
The subject matter of the book falls into two parts.
13. The book (the author) discusses (deals with, is concerned with, covers, considers, gives consideration to, describes, gives an accurate description of, outlines, emphasizes, places emphasis on) the problem of...
14. The book provides the reader with some data on... (some material on..., some information on..., an introduction to..., a discussion of..., a treatment of..., a study of..., a summary of..., some details on..., a useful bibliography, a list (set) of references, key references).
15. A careful account is given of / A detailed description is given of / A thorough description is given of / Much attention is given to / Little attention is given to } the theory (problem, method) of...
16. Of particular (special, great, little) interest is the method of...
Of particular interest is the theory (discussion, treatment) of...
17. Of great (little) importance is the method of...
18. It is notable (noteworthy, praiseworthy, fortunate, unfortunate, a mistake, a slight disappointment) to the author's credit that...
19. The author has succeeded in showing (providing, presenting) the results of...
20. The author failed to show (to exhibit, to provide, to present, to give an account of, to direct our attention to)...
21. The author (editor, publisher, proofreader, corrector) is to blame for the drawbacks in the book.
The book suffers from the mistakes (the errors, the limitations, the shortcomings, careless proofreading).
22. Despite (in spite of) these drawbacks the book is a useful reference work (a valuable source of ready information).
Despite these drawbacks the book proved useful to (helpful to)...

23. The book begins with a discussion of (chapter on, introduction to, introductory discussion of)...
The book begins with introductory notes (remarks, part).
24. The book ends with a discussion of...
25. In conclusion (in summary, summarizing) the author...
26. The purpose (aim, object) of the book is to provide...
27. The book aims to provide (acquaint, present, show)...
28. The book is profusely (poorly) illustrated with diagrams (tables, colour plates, photographs, sketches).
29. The author (editor) is to be congratulated on the success of the book (the timeliness of the book, producing this book).

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Исправления и опечатки

Страница	*Строка*	*Напечатано*	*Должно быть*
54	11—12 снизу	construktion	construction
56	1 »	phylosopher	philosopher
98	14 »	Располоежнная	Расположенная
124	20 »	eaning	meaning

Пособие для научных работников

62 коп.

ИЗДАТЕЛЬСТВО «НАУКА»
ЛЕНИНГРАДСКОЕ ОТДЕЛЕНИЕ